31 MAY 1935

BIHAR AND ORISSA

IN

1933-34

BY

J. S. WILCOCK,
Indian Civil Service.

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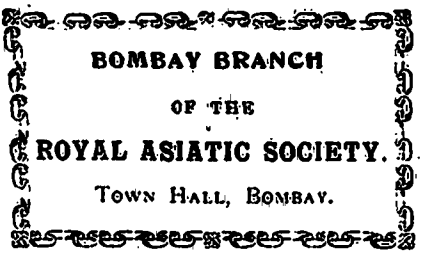

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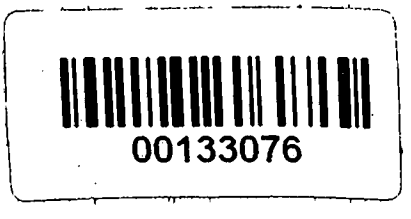
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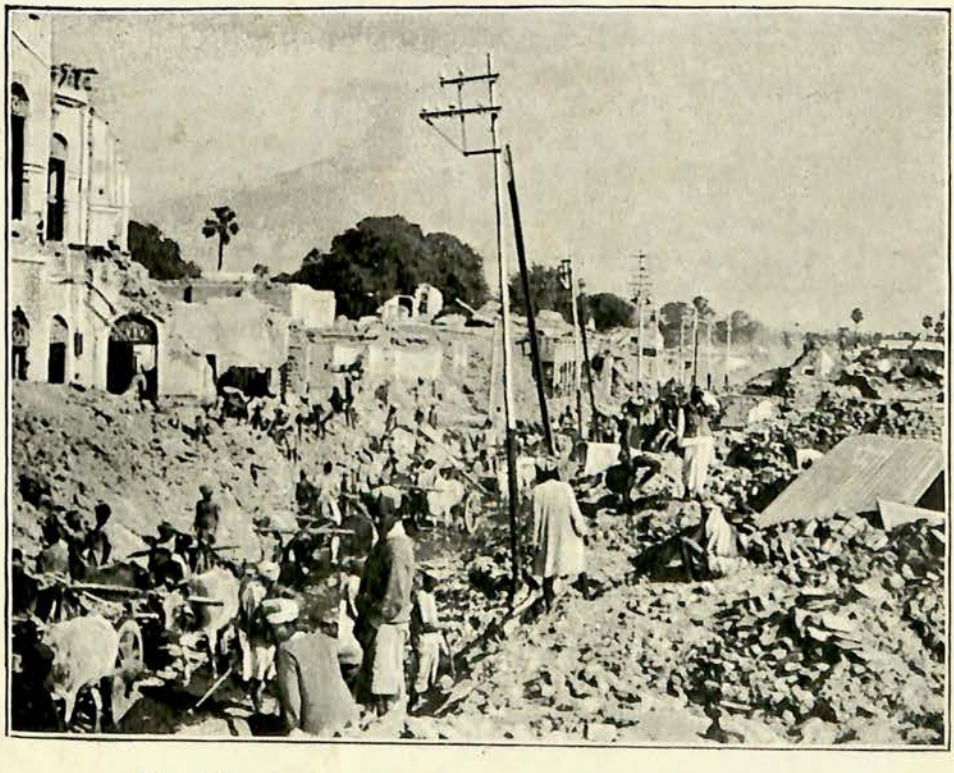

The Chauk Bazar at Monghyr after the Earthquake.

NOTICE.

THE task of preparing this book has been entrusted to Mr. J. S. Wilcock, I.C.S., and it is now published under authority and with the general approval of the Government of Bihar and Orissa, but it must not be assumed that the approval extends to every particular expression of opinion.

57 Rev.

PREFATORY NOTE.

THE main portion of this volume deals with the financial year 1933-34, viz. the period from April to March. In Chapter II, however, the progress of the relief operations following the earthquake has been described up to the end of December 1934. A short summary of the principal other events of the calendar year 1934 is included as an appendix, in order to bring the history of the province up to date as far as possible. The photograph shown as frontispiece and those facing pages 14 and 16 are reproduced from "A Report on the Bihar Earthquake and on the measures taken in consequence thereof up to the 31st December 1934" by W. B. Brett, C.I.E., I.C.S.

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Bihar and Orissa in 1933-34.

CHAPTER I.

Political and general events.

The Administration.

His Excellency Sir James David Sifton, K.C.S.I., K.C.I.E., I.C.S., continued to hold the office of Governor of the Province throughout the year. The Hon'ble Mr. J. T. Whitty, C.S.I., C.I.E., I.C.S., proceeded on four months' leave on the 9th August 1933 and the Hon'ble Mr. J. A. Hubback, C.S.I., I.C.S., was appointed to be a Member of the Executive Council during his absence. On the transferred side the Hon'ble Sir Ganesh Datta Singh continued to be Minister in charge of the portfolio of Local Self-Government. The Hon'ble Sir Saiyid Muhammad Fakhruddin resigned the office of Minister in charge of the portfolio of Education on the 6th May 1933 on account of ill-health, and to the universal regret of all who knew him died shortly afterwards. The Hon'ble Khan Bahadur Saiyid Muhammad Hussain was appointed Minister in his place. After holding office for less than eight months the Hon'ble Khan Bahadur died suddenly of heart failure on the 24th December 1933. His death too was widely regretted. As a temporary measure some of the subjects included in the portfolio under his charge were taken over by His Excellency the Governor and some were transferred to the Hon'ble Sir Ganesh Datta Singh. The vacancy was filled by the appointment of the Hon'ble Mr. Saiyid Abdul Aziz with effect from the 15th January 1934. The Hon'ble Raja Sir Rajendra Narayan Bhanja Deo, Kt., O.B.E., of Kanika, Vice-President of the Executive Council, retired with effect from the afternoon of the 17th January 1934 and in his place the Hon'ble Babu Nirsu Narayan Sinha was appointed to be a Member of the Council, while the Hon'ble Mr. J. T. Whitty, C.S.I., C.I.E., I.C.S., who had in the meantime returned from leave, was appointed to be Vice-President.

Political and general events.

The period under review, April 1933 to March 1934, is divided into two sharply-contrasted sections by the earthquake of January 15, 1934. During the first nine months there is little of interest to record; during the last three, the earthquake completely dominated

the scene, and every other question sank into insignificance in the face of the gigantic problems of relief and reconstruction. An account of the earthquake and the problems arising from it will be found in Chapter II; but in order to secure a continuous narrative of the political history of the province during the year, a short account of the political repercussions of the earthquake is given in this chapter.

The period from the 1st April 1933 to the close of the calendar year was devoid of incidents of real political interest or importance. The reasons for this period of quiescence are not far to seek and a brief recapitulation of the situation as it was at the opening of the year will go far to explain them. The year 1932 had witnessed the progressive decline of civil disobedience and the corresponding success of the policy of Government in resolutely maintaining law and order, while pressing ahead with the work of constitutional reform. The series of Round Table Conferences had culminated in the publication of the White Paper on the 18th March 1933. The proposals in the White Paper were subjected to severe and frequently intemperate criticism, but interest was short-lived for the proposals were in general but a reproduction of the decisions reached at the Third Round Table Conference. Henceforward, the responsibility for framing the new constitution returned to the British Parliament and the politically-minded in India settled down to a protracted wait for the Report of the Joint Select Committee. Among the mass of the population, the general desire was for the cessation of political agitation. Shop-keepers were tired of *hartals* and boycotts, raiyats were tired of no-tax campaigns which brought them no benefit, and every one was tired of futile and lifeless demonstrations which were not backed by real enthusiasm. In Congress circles there was widespread disillusionment and recognition of the fact that civil disobedience had proved a failure as a political weapon; there were dissensions within the party and a definite swing of opinion among the moderates in favour of the unequivocal withdrawal of civil disobedience and of the resumption of constitutional methods of agitation; there was a growing feeling that the negative Congress policy of the last few years had greatly retarded the progress of constitutional reforms and that it would be tantamount to political suicide to leave to others the political opportunities offered by the new constitution.

To complete a survey of the position as it was on the 1st April 1933 a few words are necessary on the anti-untouchability movement. For many years enlightened leaders of Hindu opinion have recognised that the religious and social disabilities of the untouchables are a serious blot on Hinduism, but orthodox Hinduism is

strongly entrenched and it was apparent that nothing but a nation-wide movement could effectively improve the condition of the depressed classes. The problem emerged as a serious political question with the publication of the communal award and Mr. Gandhi's " fast unto death ", the avowed object of which was to prevent the disruption of Hinduism by the assignment of separate electorates to the depressed classes. The excitement engendered by Mr. Gandhi's fast gave a temporary stimulation to the anti-untouchability movement, but in Bihar and Orissa no substantial or permanent results were achieved and by the beginning of April 1933 interest had largely subsided.

On the 1st May 1933, Mr. Gandhi announced his decision to undertake a three-weeks fast from the 8th May " for reasons wholly unconnected with Government and solely connected with the *Harijan* movement ". The reason for this decision was ostensibly his dismay at the general lack of enthusiasm for the cause of the untouchables. Be that as it may, the fast actually served to introduce a new political move on Mr. Gandhi's part, though it is to be doubted whether it served the cause of the untouchables. In view of Mr. Gandhi's declaration as to his motives in undertaking the fast, Government not unnaturally released him from jail. Mr. Gandhi immediately published a long statement of his views on the political situation and recommended the suspension of civil disobedience for six weeks on the ground that Congressmen would be in a state of nervous anxiety during his fast. His advice was followed by Mr. Aney, the acting President of the Congress.

In Bihar and Orissa, the fast excited a good deal of activity of the demonstrative rather than the effective kind but there was in general complete absence of the tense excitement with which Mr. Gandhi's previous fast had been followed. In many places there was vigorous opposition by the orthodox elements to the anti-untouchability propaganda. Attempts to take low caste people into the temples were frustrated at Gaya and Puri, and in other places the propaganda merely stiffened the opposition by the orthodox. Not infrequently the untouchables themselves were suspicious and frightened of entering temples through superstition. Activity fell off rapidly with the termination of the fast and frequently such advance as had been made was lost. In several instances wells thrown open to Doms were purified by the orthodox, and further access prohibited.

The first period of suspension of civil disobedience was due to end in the middle of June, but it was extended to the end of July. The leaders controlling Congress policy at this time were in an

unenviable position. For acute dissensions were becoming more and more apparent throughout the party. The extremists clamoured for an immediate resumption of civil disobedience, while the moderates were convinced that the movement had proved a failure and should be abandoned. The next step was a conference of Congress leaders at Poona in the middle of July, the outcome of which was a telegram from Mr. Gandhi to the Viceroy seeking for an interview with a view to exploring the possibilities of peace. This request was refused. In refusing the Viceroy reiterated the policy of Government that there could be no question of negotiating with Congress for the withdrawal of civil disobedience. Then came the announcement by Mr. Aney, under the guidance of Mr. Gandhi, of a new programme involving the suspension of mass civil disobedience, the dissolution of Congress organisations and the launch of "individual" civil disobedience.

The reactions to the new programme within the province of Bihar and Orissa were not great. The prevailing feeling was one of complete mystification, and even among Congressmen there was a general feeling of bewilderment. Mr. Gandhi's actions after the Poona conference were felt to have strengthened Government's position and to have involved the Congress in some humiliation. The new programme of individual civil disobedience excited no enthusiasm. There was a mild revival on the old lines during the month of August. A number of arrests had to be made, mainly in Gaya, Champaran, Muzaffarpur, Bhagalpur and Purnea. Picketing, the shouting of slogans, the hoisting of flags and the taking out of processions comprised the entire activities of the Congress for the next month or so and it is not surprising that the general public failed to detect any change arising from the new programme.

Meanwhile Mr. Gandhi had again been arrested and had commenced yet another fast, this time because he had not got full facilities for *Harijan* work in jail. In the province the fast excited little or no interest, nor was there any excitement at Mr. Gandhi's release when medical reasons compelled it. Mr. Gandhi's reputation as a political leader was now at its lowest ebb. He withdrew from practical politics and for the next few months devoted himself to the anti-untouchability movement. At the beginning of November he embarked on an all-India propaganda tour in the interest of the movement and was due to reach Orissa in February after visiting the Central Provinces, Madras and Bengal. His tour indicated that his personal influence was still considerable. Crowds flocked to see him and large sums of money were collected

for the movement. A certain amount of opposition was encountered from " Sanatanists " and in a number of places they prostrated themselves in front of his motor car. Meanwhile the Congress drifted helplessly. The individual civil disobedience programme had proved a complete failure, and had never captured the public interest; there was disharmony among the leaders and disillusionment among the rank and file.

Such was the political situation, when the province was visited by the disastrous earthquake of January 15. As soon as the magnitude of the calamity was apparent, there was a truce from politics and activities designed to embarrass Government and a general disposition to co-operate in relieving the distress in the stricken areas. Babu Rajendra Prasad, the provincial Congress leader, who had just been released from jail, was appointed President of the Bihar Central Relief Committee and on the 22nd January he wrote to the local Government offering to assist and co-operate with other organisations, official and non-official, working for relief. This offer was welcomed by Government in the same spirit, and was the prelude to a considerable improvement in political feeling in the province. Throughout the relief operations, leading men of all shades of opinion worked harmoniously with Government and each other. Within the province there was little disposition to make political capital out of the enormous difficulties with which the local Government was faced. Outside the province the same good sense and helpful attitude was not always displayed, but unfounded allegations against the local Government met with no response among the public of the province.

Mr. Gandhi meanwhile was pursuing the anti-untouchability campaign in Madras. He amazed intellectual opinion in India by a pronouncement that the earthquake was a visitation on Bihar for the sin of untouchability. Apparently after some hesitation, he decided to cancel his tours in Bengal and Orissa and came to Bihar in the middle of March.

While in the province he avoided political and controversial subjects and devoted his attention to work connected with the earthquake and the *Harijans*. He presided over a meeting of the All-India Board appointed to deal with the Bihar Central Relief Fund; at which a number of resolutions were passed including one in which " respectful co-operation " was offered to Government in the work of relief.

Floods in Orissa.

In August 1933 the districts of Cuttack and Puri were visited by severe and prolonged floods occasioned by the coincidence of heavy rainfall in the upper reaches of the Mahanadi with abnormal and cyclonic rainfall

in the region of Cuttack. On the 3rd and 4th of August not less than 18 inches of rain fell within 48 hours in Cuttack town; this torrential downpour extended for a radius of some fifty miles around the town. The immediate effect of this rain was to flood the low-lying parts of the town and to cause extensive damage to house property. Meanwhile a heavy flood was already sweeping down the Mahanadi from Sambalpur. The combination of the two floods raised the Mahanadi to a higher level than any recorded for forty years. The river reached its maximum height on the 6th August when the gauge reading was only a few inches below the record height reached in 1892. The main distributaries of the Mahanadi to the south, the Kathjuri, the Kuakhai and the Sarua were unable to carry off the enormous volume of water. Their embankments were extensively breached and large areas which had hitherto been regarded as protected from flood were inundated. The material damage was particularly severe because the breaching of the embankments exposed whole villages to the full fury of the flood, whereas in areas unprotected by embankments the houses of all but the poorest are built out of reach even of an exceptional flood. The subsidence of the flood was unfortunately retarded by further heavy local rainfall of 9 inches in 72 hours on the 8th, 9th and 10th August. Thereafter the flood began to subside. The most extensive damage was done in the Khandait area of the Cuttack Sadr subdivision and in the east Balianta and north Balipatna thanas of Puri district which lie immediately to the south of this area. Severe damage was also suffered in the Kakatpur thana of Puri district and the Gobindpur and Balikuda thanas of Cuttack district.

The loss of human life was small owing to the effective action taken by the relief officers and police to rescue persons who had taken refuge on trees and roof-tops. The number of persons drowned in the two districts was nine. An epidemic of cholera broke out after the floods had subsided, and 2,281 persons died from this cause. Not all of this mortality can be ascribed to the floods and their after-effects, as the mortality from cholera in normal years in this locality and at this season is considerable. Prompt measures were taken to combat the epidemic. Sixteen medical parties were formed each under a qualified medical practitioner and sent out to the affected tracts. All the medical officers acted directly under the orders of the Civil Surgeons. Altogether over 50,000 people were treated with bacteriophage and over 35,000 more were inoculated against cholera. 175 cattle were lost principally in Cuttack district, where they died largely of exposure through the hurricane which preceded the flood. Crops and houses

were damaged or destroyed over a very wide area. Altogether 6,357 houses were destroyed and nearly double that number were severely damaged. Crops, principally paddy, were entirely destroyed over an area of nearly three hundred thousand acres and damaged over an area of one hundred and sixty thousand acres. With the aid of assistance from Government and various charitable funds, a large portion of the area in which crops were destroyed was replanted with paddy or sown with *rabi* crops.

Over the greater part of the flooded area no permanent damage was done to the land, but in the neighbourhood of the breaches in the embankments heavy deposits of sand were left on the fields. Altogether 3,359 acres were damaged in this way.

A brief account follows of the various measures taken to relieve the distress which inevitably resulted from the damage to property and crops.

To help the more substantial cultivators to rebuild their houses and to resow their lands Rs. 3,86,449 were distributed in *takavi* loans. A grant of Rs. 40,000 was obtained from the Indian Peoples Famine Trust Fund and distributed in the form of house-building grants among the poorer classes who could not take *takavi* loans. Various charitable organisations working in the affected area did much to relieve distress among the destitute. On gratuitous relief, Rs. 16,870 was expended by Government, Rs. 20,876 by the district relief fund and nearly Rs. 2 lakhs by various charitable funds. Government also spent Rs. 13,000 in the purchase of seeds for free distribution to make possible the sowing of a cold-weather crop in the damaged tracts. To assist the labouring classes a sum of Rs. 50,000 was placed at the disposal of the Commissioner to augment the resources of the district boards for the repair and reconstruction of the roads in the devastated area.

Excellent work was done by a number of non-official organisations and, on the whole, they worked in close co-operation with Government.

Relations between Hindus and Muhammadans.

Political developments of the last few years have unquestionably tended to accentuate communal feeling and Bihar and Orissa has not been more fortunate than the rest of India in this respect. The knowledge of impending constitutional changes has given rise among Muhammadans to a vague but widespread apprehension of Hindu domination and the hardly-concealed determination of the mass of Congressmen to upset the Communal Award at the earliest opportunity has not improved the situation.

The growing tension between the two communities has been noted in these reports for the last few years. It is not possible to record any improvement during the year under review, although some satisfaction is to be derived from the fact that there was no serious outbreak of communal rioting. This was very largely due to the extensive precautions taken by the district officials and police whenever there was any threat of trouble. The *Bakr-Id* passed off quietly everywhere except at Rajgir in Patna district where a serious riot was narrowly averted. There had been trouble at the *Id-ul-Fitr* in January because the Muhammadans insisted on using a flight of steps which lead right through the sacred *Kunds* at this place, although there is another flight available a few yards away. The Subdivisional Officer directed the Muhammadans to use the latter steps in January and reaffirmed his order at the *Bakr-Id*. On this occasion the Hindus became apprehensive and circulated *patias* in Patna and Gaya districts with the consequence that a mob of 2,000 or 3,000 Hindus armed with *lathis* collected on the morning of the first day of the *Bakr-Id*. Effective action was taken by the police and the Hindus were disarmed before a collision could take place. No trouble of a very serious nature occurred at the *Muharram* though there was a crop of minor incidents, many of which were due to personal enmity rather than genuine communal feeling. At Katalpur in Saran district a small party of police was compelled to open fire in order to prevent a collision between two drunken mobs. There was the usual trouble in many places over the difficulty of taking *tazias* under sacred trees, and in Samastipur the Muhammadans deliberately made their *tazias* eight feet higher than usual in order to provoke trouble of this nature. In July communal friction resulted in two riots in Patna district. In one of them at Andari one person was killed and five injured. This riot was occasioned by the entry of a chicken into a Hindu house, a trivial incident which could not have led to a riot had not tension between the two communities been very acute. The *Mahabir Jhanda* processions as usual gave ground for anxiety in a number of places in western Bihar. Until recent years the lower caste Hindus in country districts used to accord a large measure of support to the *Muharram* processions; with the growth of communal tension this support has in many places been transferred to the *Mahabir Jhanda* processions which are colourable imitations of the *Muharram* and are not unnaturally resented by Muhammadans. An ugly situation developed in the Dhaka thana of Champaran district over these processions. Muhammadans are numerous in this area, and a clash between the two communities was only prevented by the courageous action of the Subdivisional Officer and

the police in arresting the leaders of both sides at great personal risk. The *Puja* processions also gave rise to a number of petty communal incidents.

After the earthquake the two communities were drawn together for the moment by a common fear of further disasters to come, but even in the most badly-affected areas it was not long before petty incidents began to recur. In February at Belsand in Sitamarhi subdivision a mob of Hindus set fire to the houses of some Muhammadan butchers who were reported to have killed and eaten a cow, and assaulted the daffadar and two chaukidars.

Responsible leaders of both communities are well aware of the danger of exacerbating the tension to which these incidents bear witness, but unfortunately there are never lacking men to fan the flame of communal discord. One can only characterize as irresponsible fanatics public speakers who accuse the general body of Muhammadans of desiring to co-operate with the English to crush the Hindus, and who denounce the communal award as threatening the very existence of Hindus.

Report of the Orissa Administration Committee.

A committee under the chairmanship of Mr. J. A. Hubback, C.S.I., I.C.S., was appointed in June to investigate the administrative problems, which would arise when the new province of Orissa was created. After a preliminary meeting in Cuttack the Committee prepared a general questionnaire which was sent to selected officials, non-officials and public bodies and a special questionnaire which was sent to Heads of Departments and other special officers in Bihar. Subsequently the Committee met in Ranchi to discuss with Secretaries and Heads of Departments of the local Government, points arising out of their answers. In October the Committee toured in Orissa and examined in all 69 witnesses. The report was published on the 20th December. Among the principal recommendations of the Committee were the following :—Cuttack should be the capital of the new province, with Puri as its summer headquarters. The province should have a separate High Court of its own in preference to affiliation with a High Court of one of the adjoining provinces : the High Court should consist of a Chief Justice and three puisne judges, the latter being vested with powers to do work which in the major provinces District and Sessions Judges do on the original side. For the present a separate University should not be created owing to financial difficulties. For the All-India Services the cadre should be joint with Bihar, but all the provincial services should be self-contained.

Reduced rates of pay for new entrants to services under the local Government.

In pursuance of a recommendation of the Committee to advise on retrenchments, the local Government introduced with effect from the 1st December 1933 reduced rates of pay for all new entrants to posts and services under their rule-making powers. Approximately a 15 per cent reduction was effected in all existing scales of pay, but pay of Rs. 50 a month and under was not reduced except in so far as it was found necessary to do so in order to secure a correct flow of increments, where a scale extended above Rs. 50. The new rates are not applicable to the pay of any Government servant who held a substantive post on the 31st August 1932 or to persons who on that date had held a temporary or officiating post without a break for one year, and who were subsequently confirmed without a break after that date; nor are they applicable to the pay of probationers who were appointed before that date in or against substantive vacancies in a cadre. The question of applying the new rates to persons who held substantive posts on the 31st August 1932, and who subsequently secured promotion to a higher service or to a higher scale of pay was still under consideration at the close of the year.

Labour.

In spite of the depression relations between the employees and labour continued to be generally satisfactory. There was a lightning strike at the East Indian Railway Jamalpur Workshops in July owing to misunderstanding, but work was resumed on the same day. A short-lived strike lasting for only three days occurred at the Bararee Coke Plant of Messrs. Jardine & Co., in the Jharia coal-field. There was no disturbance at Jamshedpur during the year in spite of attempts by professional agitators to stir up trouble.

The Press.

The general tone of the Press was more moderate than in previous years, partly owing to the improvement in the political situation, partly owing to the Indian Press Act of 1932. Three extremist papers which had ceased publication in 1932 resumed publication but although they renewed their attacks on Government, they took care to avoid any further violation of the Press Act.

In general the provincial press took little interest in foreign affairs and non-political questions of general importance. As usual tirades against Government filled many columns. Criticism was particularly severe for the refusal to make peace with the Congress after the temporary suspension of civil disobedience. The propaganda for the removal of untouchability aroused singularly little enthusiasm and a number of papers were hostile to temple entry.

Graph showing price per standard maund in rupees of important agricultural commodities from 1929 to 1934.

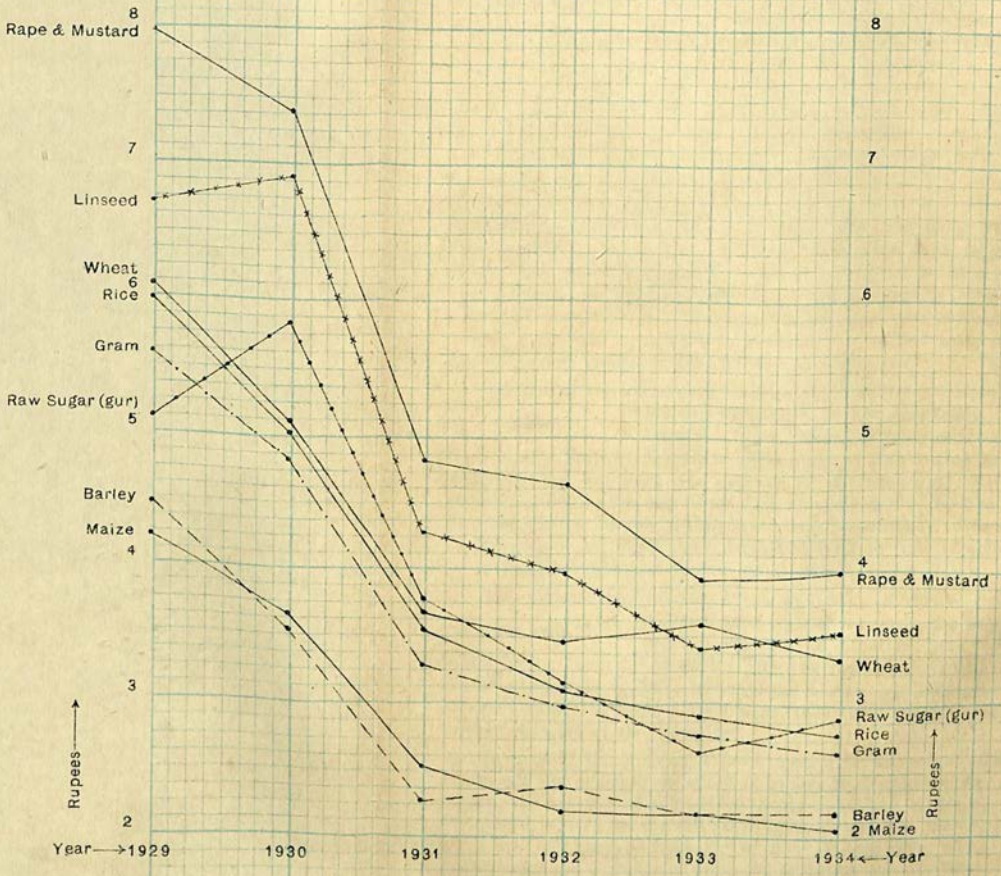
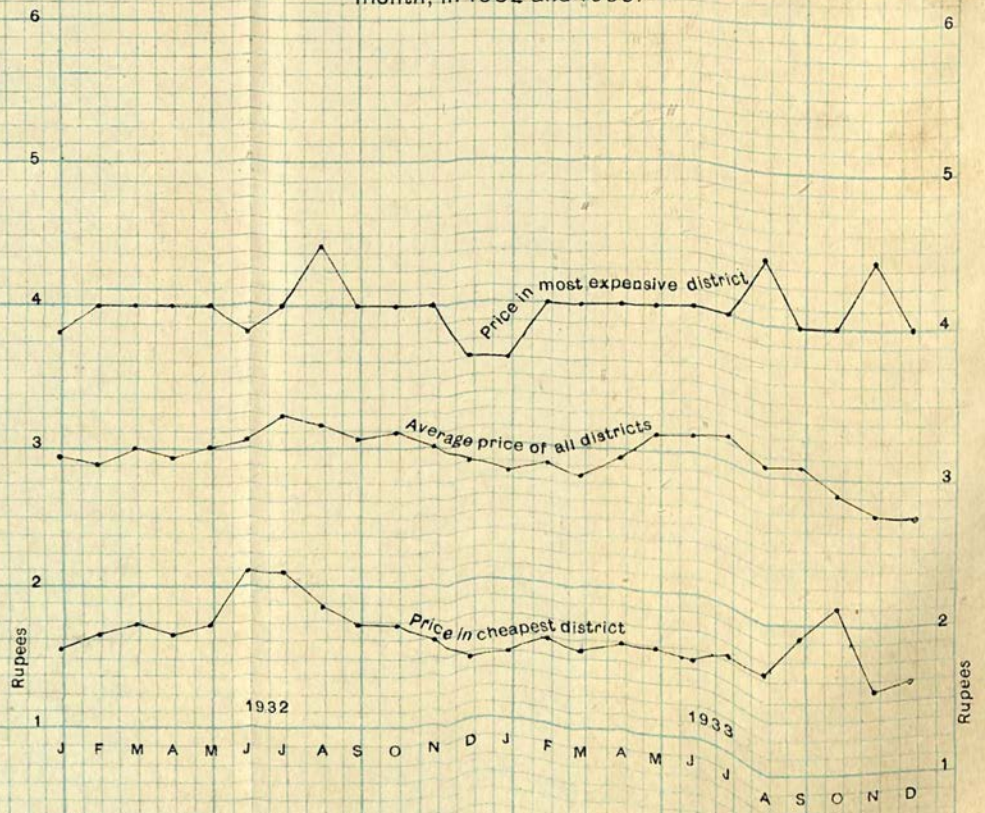


Diagram showing the price in rupees of one standard maund of common rice, month by month, in 1932 and 1933.



After the earthquake the attitude of the provincial press was friendly and helpful. There was a natural tendency to dwell on the darker side of the picture, but the editors were always ready to give prominence to the communiqués issued by Government at frequent intervals to keep the public informed of the latest developments. For the remainder of the year the earthquake remained the most prominent feature in the local press.

Economic situation.

The prices of agricultural products continued at the same low level as in the year 1932-33 and there was no marked improvement in the general economic condition of the people. However, crops were on the whole good and there was no acute distress. The monsoon rains were plentiful and favourable to the winter rice-crop, except in the Cuttack and Puri districts where extensive damage was done to the rice-crop by floods. Irregular rainfall and floods caused local damage in parts of North Bihar. *Rabi* crops were generally good except in Palamau where they suffered from frost, drought and hail. The sugar-cane crop was one of the best of recent years, particularly, in the districts of Muzaffarpur and Darbhanga. The earthquake occasioned little damage to the standing crops, but an extensive area in North Bihar had in a few minutes been covered with sand expressed from below, and this fact gave rise to fears that a large part of it would be out of cultivation for a long period. Fortunately these fears were found to be in the main unrealised. Further, for some two months there was great anxiety about the disposal of the sugar-cane crop owing to the number of sugar-mills put out of action. It will be seen in Chapter II that the problem was eventually solved without serious loss to the cultivators.

The general shortage of money resulting from the depressed price level of the last few years made the payment of rent by raiyats and revenue by landlords a matter of considerable difficulty; there is, however, no evidence of a marked increase in indebtedness, and there is reason to believe that the agriculturist is adapting himself to the changed conditions by thrift and giving up luxuries. Towards the end of the year the volume of money in circulation in North Bihar was greatly increased by the distribution of grants and loans on a large scale in connection with earthquake relief, while in Chota Nagpur a sensational rise in the price of lac brought considerable benefit to the ordinary cultivator.

Prior to the earthquake, the volume of employment was small and the supply of labour generally exceeded the demand. Wages suffered a further slight fall. The earthquake resulted in a sharp but temporary rise in wages in the affected districts. This was

followed by a period of abnormal depression owing to the stoppage of agricultural operations. By the end of the year, however, the demand was above normal again. In Purnea the continued slump in the jute and tobacco trades reduced the demand for outside labour, but local labour was fully employed. In Hazaribagh and Manbhum there was a further decrease in employment in the coal and iron mines and wages fell lower than ever. A coal-cutter now earns only about Rs. 1-8-0 a week as compared with eight annas a day three years ago.

The number of emigrants from Ranchi to the tea districts of Assam rose from 24,704 to 26,261.

The other side of the picture is the continued fall in the cost of living. Cost of living index figures are worked out month by month for seven centres in Bihar and Orissa, viz. Patna, Muzaffarpur, Monghyr, Jharia, Cuttack and Ranchi. At all these centres there was a steady downward trend throughout the year and at the close of the year the cost of living was considerably below the pre-war normal level everywhere except at Jamshedpur.

CHAPTER II.

The Earthquake.*

*(In order to present a more complete picture of the earthquake and its results, the story in this chapter has been extended up to December 1934.)

On January 15, 1934, the province was shaken by an earthquake which in its intensity and extent was as severe as any recorded in history. The shock was felt over an area of some 850,000 square miles in India, throughout Nepal and even as far north as Lhasa in Tibet. Within the province the badly-affected area comprised the whole of Bihar north of the Ganges, and a strip of varying depth running from Arrah to Monghyr on the south. The whole of this area was not affected with equal severity, and not infrequently zones of great destruction occurred side by side with zones where the shock was of comparatively low intensity. But taking the general trend it is possible to delimit the following belts of great intensity with some accuracy. The area of maximum intensity occupied a belt 80 miles long and some 20 miles in width extending from the east of Motihari through Sitamarhi to Madhubani. There were two zones of very severe intensity. The one an irregular ellipse some 6,000 square miles in extent stretching east-south-east from the west of Motihari to Purnea, and from the Nepal border to the south of Muzaffarpur and Darbhanga; the other the zone between Patna and Monghyr along the stream of the Ganges. The affected area is alluvial in character, but south of the Ganges the depth of the alluvium is not great, and Monghyr itself is built upon a rocky peninsula projecting from the Chota Nagpur hill system.

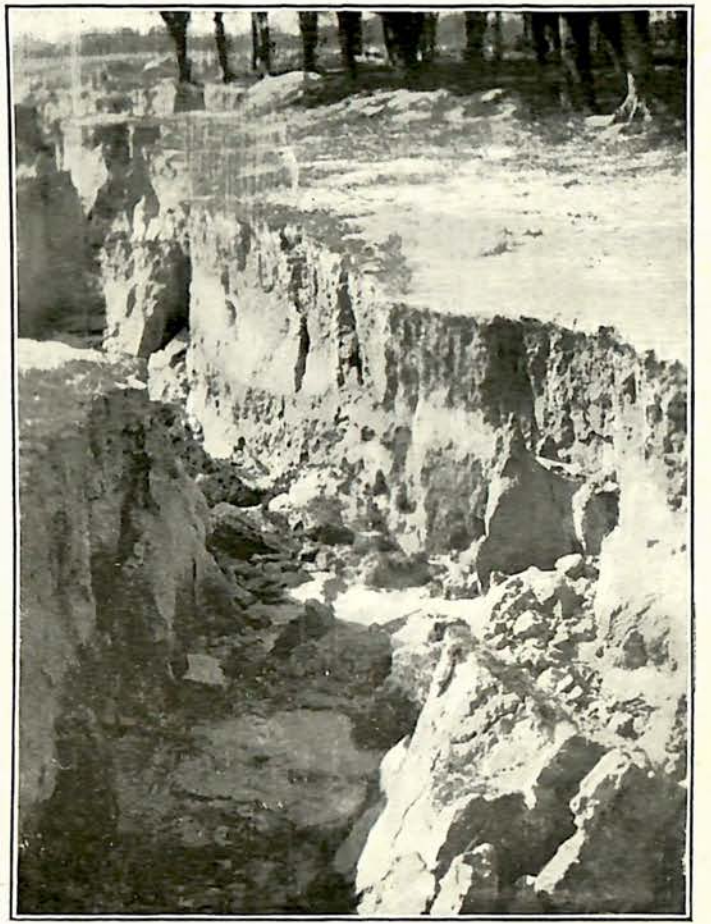
An exhaustive report on the earthquake and the measures resulting from it has been prepared by the Relief Commissioner and is, at the time of writing, about to be released for publication. The present account professes to be only a concise history of the main features.

Some understanding of the physical configuration of North Bihar is an essential preliminary to any attempt to study the effects of the earthquake and the immediate difficulty of dealing with the problems which arose. Communications between North and South

Bihar have always been bad. The Ganges is unbridged throughout its 200 miles course across the province. The journey from Patna to Muzaffarpur, only 35 miles away, normally occupies over four hours and the journey from Bhagalpur and Monghyr to the northern parts of the districts named after those towns is even more tedious. In North Bihar the western and eastern extremities of the affected area, the Saran and Purnea districts are divided off from the rest of North Bihar by the Gandak and Kosi rivers respectively. Neither of these rivers is bridged or fordable except near their confluence with the Ganges, where they are crossed by the Bengal and North-Western Railway. The area between these two rivers is itself divided diagonally by the winding channels of the Bur Gandak and Bagmati rivers which flow in a south-easterly direction and merge before flowing into the Ganges. South and west of these rivers the principal towns are Motihari, Muzaffarpur and Samastipur; north and east are Sitamarhi, Darbhanga and Madhubani. The three towns in the south-western portion are linked by a good metalled road and the railway, while communication with Patna is maintained by a metalled road and a railway running from Muzaffarpur to Hajipur. To reach the towns in the north-eastern portion there are three metalled road routes, from Muzaffarpur to Darbhanga, from Muzaffarpur to Sitamarhi, and from Samastipur to Darbhanga. The roads are carried on high embankments with numerous bridges, across country which is flooded during every monsoon season, and are frequently breached during excessive floods. Railway communication is maintained by the line running from Samastipur to Darbhanga which crosses both the Bur Gandak and the Bagmati. These roads and the railway suffered serious damage; Sitamarhi and Motihari were completely cut off, and it was only with difficulty that it was possible to reach Darbhanga by the road route via Samastipur. If these facts are appreciated, little surprise will be felt that it was some days before the magnitude of the disaster was appreciated, and weeks before the full extent of the damage was known. There is telegraphic communication with the principal towns of North Bihar through Muzaffarpur, but this line was put out of action. To a limited extent aeroplanes were able to ignore shattered communications, and from the first the fullest use was made of their services. Yet the fact remains that the destruction of communications was one of the principal obstacles the local Government had to meet in their relief operations, and their restoration one of the most urgent needs.

The population of North Bihar is dense and almost entirely agricultural in character; of a total population of approximately

Muzaffarpur.



In Champaran. The fissure is thirty feet wide, fifteen feet deep and 300 yards long.

Fissures.

13 million persons only some three hundred and fifty thousand or less than 3 per cent live in towns of any size.

Winter rice is the principal crop in the low-lying areas particularly to the north and east, but a great part of the Tirhut Division is extremely fertile and suitable for the production of sugar-cane, chillies, tobacco and other valuable crops. South of the Ganges the population is again predominantly rural, but serious damage was confined to the towns, principal among which are Arrah, Patna, Monghyr, Bhagalpur and Gaya.

The main shock occurred on 15th January at 2-13 P.M. and lasted for a period varying from 2½ minutes in some places to 5 minutes in others. After-shocks of gradually decreasing intensity and frequency continued to occur for some months but did not cause material damage. In the area south of the Ganges the earthquake pursued a normal course and the damage, serious though it was, resulted entirely from the collapse of buildings which were unable to withstand the violent oscillation. In North Bihar, however, owing to the low density and instable nature of the alluvium, the earthquake was accompanied by the most spectacular results. Sand and water were ejected in vast quantities from fissures and geysers which appeared in the soil; wells and river beds were choked with sand; roads and railway embankments subsided in many places and the borrow pits at their sides were filled with sand; bridges collapsed or were distorted in the most extraordinary manner. Buildings were destroyed in vast numbers and not infrequently even where they held together, subsided several feet into the ground, or were twisted and tilted by the opening of fissures under their foundations. Along the banks of rivers, lakes and tanks the soil had a tendency to give way and slump, and great slabs of earth sank bodily as much as ten feet below the former level.

In North Bihar these accompanying phenomena were frequently even more terrifying than the earthquake itself. The psychological effect upon the nerves of even the strongest and more particularly upon the superstitions of the villagers was tremendous. The resultant apathy and despair had to be overcome before the villagers could be persuaded to help themselves, and was a factor which can easily be under-estimated by those who have not experienced a severe natural calamity of this nature. Another factor which played havoc with the nerves of the superstitious, was the fact that an article prophesying (among many other matters) a severe earthquake in North-East India on 15th January had received wide publicity in certain Indian newspapers during December.

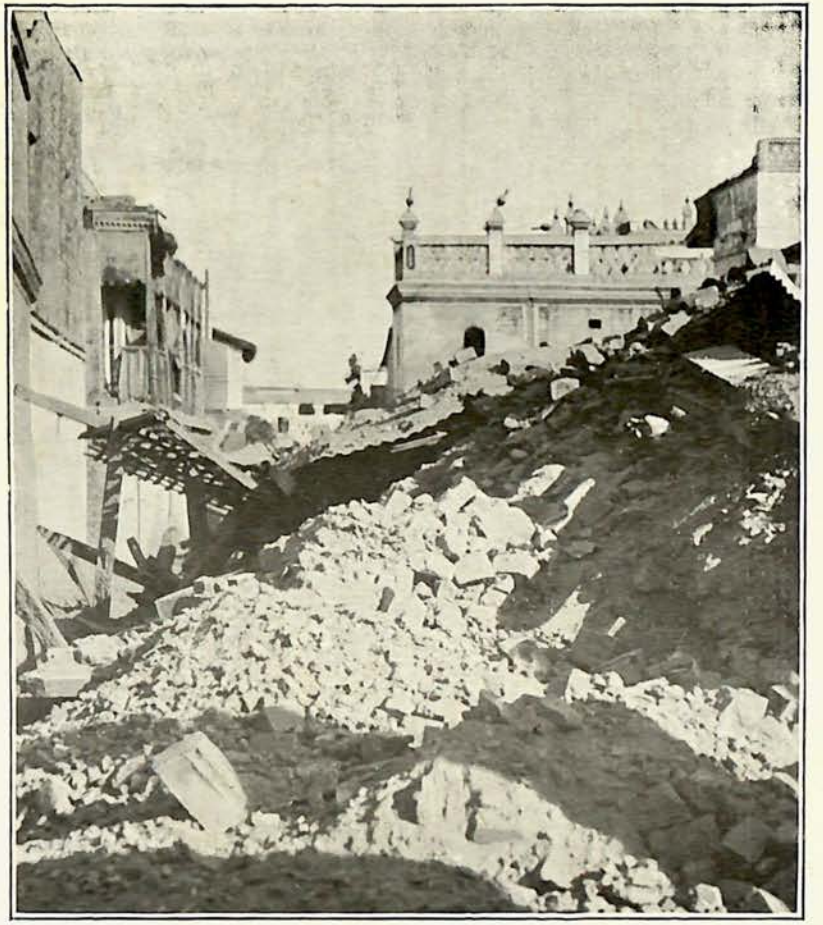
After the main earthquake occurred there was naturally a fertile crop of similar prophesies, which not infrequently gave a specific date and time a few days ahead for the destruction of the world or at least of most of her inhabitants, the few survivors being left to suffer indignities worse than death. In reading any account of the earthquake, the existence of this state of nervous tension among a considerable portion of the population of North Bihar for some weeks after the earthquake is a factor to be constantly borne in mind.

While the damage was naturally most concentrated and obvious in the towns, the accompanying phenomena were even more terrifying in the country. Water and sand continued to spout forth with great force for as much as half an hour after the initial shock from innumerable geysers, and in low-lying areas people might well be pardoned for thinking they had escaped the earthquake only to suffer death by drowning. The country side seen from the air a few days afterwards appeared to have suffered large scale alterations. It was pitted with innumerable small crater-like openings, and through many of the fields ran fissures extending for miles. Large expanses of water covered the fields, as though the monsoon had broken some weeks before, in the middle of the cold weather.

The total number of deaths caused by the earthquake is reported to be 7,252, of which 1,260 occurred in Monghyr town and 956 in Muzaffarpur town. The figure is surprisingly low considering the magnitude of the earthquake, but cannot be far wide of the mark. The low death-roll is largely due to the fact that houses did not collapse until the shaking had been in progress for some time, and people had time to reach a place of safety; further the shock occurred at a time when many people were at work in their fields; and finally the overwhelming majority of the people in the affected area are raiyats living in low mud huts which even when they collapsed did not cause serious injury. The death-roll was worst where people were trapped in narrow and congested bazaars as in Monghyr, Muzaffarpur and Darbhanga.

The two small towns in the epicentral area, Sitamarhi and Madhubani, are the headquarters of subdivisions. At both the destruction of masonry buildings through oscillation or subsidence was practically complete. At four of the district headquarters—Monghyr, Muzaffarpur, Darbhanga and Motihari—the destruction was on a serious and, at first sight, overwhelming scale. At Monghyr the main bazaar was reduced to a jumbled mass of masonry and stones in which side roads and lanes were completely obliterated. Over forty bodies were recovered from a portion of

The main street.



A side lane.

Katki Bazar, Darbhanga.

the main road only 12 yards in length. The great majority of Government buildings were damaged beyond repair. At Muzaffarpur the greater part of the town, north of the railway station, suffered very severely. The Judge's and Collector's bungalows collapsed completely. The district jail, the Civil Courts, the Collectorate, the Commissioner's office and the Imperial Bank were all seriously damaged. South of the railway station the damage was comparatively slight. At Darbhanga the damage was not quite so great as at Muzaffarpur, but in the heart of the town many buildings collapsed and there was great havoc in the Katki bazaar. The Post Office, the Northbrook School and the Medical School were badly damaged. Motihari was completely cut off by road, rail and telegraph for days after the earthquake. Fissures and slumping accounted for the wholesale destruction of buildings and hardly any Government buildings escaped.

Other towns at which the damage was serious but not on so great a scale were Patna, Purnea, Samastipur and Barh. In the New Capital at Patna Government House and the High Court suffered serious damage. The top of the tower at the Secretariat was badly affected and a few days later caused serious damage when the top portion collapsed while being dismantled. At Bankipore almost all bungalows along the river front were damaged or destroyed. The Medical College Hospital was extensively damaged and a large number of patients had to be removed from the wards to the hospital compound.

To this brief description of the damage in the towns must be added a few words regarding the railways. The Bengal and North-Western Railway has about 2,100 miles of track, of which about 900 miles was very seriously damaged. In all 361 bridges and culverts were destroyed or damaged. Over many miles the permanent way was twisted and distorted, and not infrequently the embankment had subsided leaving the rails in mid-air. South of the Ganges the East Indian Railway suffered no damage to the permanent way, but very serious damage to their workshops and buildings in Jamalpur.

A few words may also be said on the losses suffered by the European planting community of North Bihar. This community no longer enjoys the prosperous times which were theirs before the indigo industry was ruined by competition from synthetic dyes. There remain, however, some 54 estates farming from 500 to 5,000 acres, and the majority of their owners have turned to the cultivation of sugar-cane. On twenty of these estates the bungalows, in many cases very fine buildings, were completely wrecked and on fifteen more they were seriously damaged.

The immediate problem confronting Government was the restoration of communication with the devastated area. By dint of great efforts telegraphic communications were restored within a few days, the last of the district headquarters, Darbhanga, being connected up on the 19th. Pending the restoration of the roads and railways, aeroplanes proved extremely useful, both for survey of the damaged area and for the rapid transport of Government officers. It was an aeroplane belonging to Captain Barnard's Circus which brought the first news of the devastation, north of Muzaffarpur, on the evening of the 16th January and from the 17th January aeroplanes were in constant use in the employ both of Government and of private persons. For the rapid transport of stores north of the Ganges a special organisation was created under the Deputy Inspector-General of Police, Central Range. A road service was organised from Hajipur to Muzaffarpur by means of buses commandeered in Patna, under the strict control of transport officers. Railway communication with Muzaffarpur was reopened on the 27th January and the transport officers were then moved on to Muzaffarpur and Samastipur, where they organised road transport to Motihari and Darbhanga respectively.

To meet the possibility of looting, there was rapid movement of police to the devastated towns and within three days of the earthquake a force of over 200 men had been moved across the river into Tirhut and some 250 men had been sent to Monghyr. Another emergency need was for expert help in the work of clearing the wreckage of buildings and demolishing dangerous structures. In response to requests by the local Government the military authorities sent detachments of Sappers and Miners who were of great assistance in clearing the debris in Monghyr, Muzaffarpur and Darbhanga. Another detachment helped to repair and construct bridges on the main roads round Muzaffarpur. Military lorries were also invaluable in clearing the bazaars at Monghyr and Muzaffarpur.

The earthquake was followed by a bitterly cold spell, and for the first few nights there was great distress among the homeless and injured. The district and subdivisional officers were at first thrown on their own resources and initiative, but everywhere prompt and effective measures were taken to open relief centres and control prices. Within a short time arrangements were made for the distribution of food, blankets and medicines among the destitute and numerous non-official relief organisations were at work. The Indian Red Cross Society alone distributed over 40,000 blankets, 546 tents and 4,840 bags of *atta*. Extra doctors

Patna : The Medical College Hospital and Residence of Chief Justice.

were sent by the Public Health Department to the badly-affected towns both for relief to the injured and to prevent the spread of epidemics from the large encampments of refugees. As soon as the extent of the disaster became known relief funds were opened. His Excellency the Viceroy announced the opening of the Viceroy's Earthquake Relief Fund on the 19th January and large subscriptions were made throughout India and England. Ultimately the fund reached a total of 62 lakhs of rupees. The Mayor of Calcutta also opened a fund which eventually amounted to four lakhs seventy-five thousand rupees. The Bihar Central Relief Committee under the Presidentship of Babu Rajendra Prasad, the Bihar Congress leader, raised a fund amounting to Rs. 28 lakhs.

When the immediate needs of urgent relief work had been attended to and there was time to take stock of the situation, it was seen that the local Government was faced with a number of major problems. The continuance of minor shocks for months after the earthquake gave good reason to fear that the province might be visited with another disastrous shock in the immediate future; there was a widespread belief that there had been a wholesale alterations in levels in North Bihar which might lead to calamitous floods during the monsoon and even to the transformation of the greater part of Tirhut into an inland sea. These were matters for scientific investigation. To investigate the scientific aspect of the earthquake, Dr. J. A. Dunn and two other officers were deputed by the Director of the Geological Survey of India. Their report, completed in the second week of April, stressed the fact that Bihar lay in a seismic belt along which earthquakes were to be expected in future and that it was impossible to say whether a long period of quiescence could be expected before the next violent shock. They advised that in North Bihar heavy buildings should not be constructed until the dry season of 1934-35 was well advanced, since the alluvial soil was liable to subside irregularly for some months. Buildings should be given adequate foundations and proper bracing and should be one-storied and as light as possible. Masonry arched bridges and culverts should be avoided and screw pile bridges adopted wherever possible.

It was also through the good offices of the Survey of India that a detailed survey of the levels in North Bihar was made possible. Survey parties were organised and the work of checking the bench marks, which ran along two lines through the badly-affected area, was commenced in March. The results communicated to the local Government by the end of May were fairly reassuring. They indicated generally that the country had tilted very slightly to the

south-east which is the general line of drainage. A shallow pocket seemed to have formed near Sitamarhi and to the east of that place.

So much for the scientific aspect of the situation. In the meantime the local Government was grappling with seven main problems.

(1) The damage by sand deposits on agricultural land.

(2) The disposal of the sugarcane crop.

(3) The damage and destruction of drinking water wells throughout North Bihar.

(4) The possibility of serious floods during the monsoon.

(5) The destruction of buildings belonging to the local Government.

(6) The destruction of roads and buildings belonging to the local bodies.

(7) The destruction of private buildings.

The manner in which the local Government dealt with each of these problems will now be described in the order given above, which happens to be convenient, although the problems are not arranged strictly in the order of their difficulty or importance. A few preliminary words are necessary on the general measures of reorganisation taken by the local Government. To co-ordinate and expedite work in the Secretariat a special department of Government was organised under a Relief Commissioner who was also appointed a Secretary to Government. He was assisted by a Relief Engineer, under whom four Town Engineers of the status of Executive Engineers were appointed. They were stationed at Monghyr, Muzaffarpur, Darbhanga and Motihari and their duties were to supply advice to the public on the rebuilding of houses, to control supplies of building materials, to advise the Collectors in connection with the issue of house-building loans and to supervise the preparation of the estimates for the replacement of municipal property and the execution of the work. A special Superintending Engineer was also appointed with a small staff of Assistant Engineers to deal with the problems arising in connection with the reconstruction of district board roads and buildings. Extensive reorganisation was also necessary in the Public Works Department.

In many ways the most alarming feature of the earthquake in North Bihar was the ejection of large quantities of sand. The wildest stories were current regarding the destruction of standing crops and the effect of the sand on the future fertility of the land. In the end the evil proved to be exaggerated, but for weeks after

the earthquake it was widely believed that large portions of the richest land in Bihar had been turned into a desert.

It was essential to obtain accurate information. A rough idea of the areas in which the damage was greatest had been obtained by aerial survey and the reports of the village chaukidars. The area in which the deposits were serious covered about 4,000 square miles and it was decided that a detailed field-to-field survey must be made to determine the exact extent of the evil. Eleven circles were organised each with 12 to 15 surveyors under a circle officer. Work started on the 10th March and closed in the last circle on the 18th May. Altogether about 615 square miles of land were found to be affected by sand. Of this area 59 per cent contained deposits of less than one foot and only 24 square miles was covered with deposits of two feet and over. There was some conflict among expert opinion as to the effect of the sand on the land, and the extent to which natural forces would operate to remove it, but it was clear that if monetary help was to be given to the owners of the damaged fields it had to be given at once. Government decided to issue loans to substantial cultivators and free grants to small cultivators to enable them to recondition their fields. Camps were organised for the distribution of this money in conjunction with the survey parties. Altogether nearly Rs. 25 lakhs were distributed in loans and just over Rs. 4 lakhs in free grants. Although it is probable that only a small portion of this money was actually spent on sand clearance, the distribution was of great advantage in overcoming the state of despondency and apathy into which many of the cultivators in the worst-affected areas had fallen and in enabling them to resume the normal course of their lives.

The earthquake put out of action nine sugar factories in Tirhut and at first there appeared little likelihood that more than two of these could be repaired before the close of the crushing season in May. The seriousness of the position is obvious when it is stated that approximately 15 million maunds of sugarcane worth nearly Rs. 40 lakhs had been grown in the expectation of sale to these factories. If the crop could not be disposed of it spelt financial ruin for the cultivators of Tirhut who had grown to depend on this crop during the period of acute depression in the prices of all other agricultural products. The Director of Industries was placed on special duty in charge of the arrangements to be taken to deal with this situation. There were three possibilities which gave reasonable prospect of rescuing the cane-growers from their difficulties.

(*a*) The introduction of small-power plants for the manufacture of *Khandsari* sugar.

(*b*) The provision of bullock-driven mills and boiling pans for converting the cane into *gur*.

(*c*) The sale of the cane to factories unaffected by the earthquake.

Government offered loans on favourable terms to persons who were willing to buy and work *Khandsari* sugar plant, but it was found that extensive use was not made of this concession and attention was concentrated on the other two methods of relief.

There was great difficulty in obtaining the requisite number of bullock-driven mills and boiling pans at such short notice, but in all, 3,469 mills and 3,272 boiling pans were obtained and distributed. The cultivators had to be taught the forgotten art of making good *gur*, and their reluctance to use the mills while there was the slightest possibility of selling their cane to a factory overcome. For this purpose demonstration parties were organised by the Agricultural Department. The cost of the mills and pans came to just under Rs. 2 lakhs and the freight charges to just over Rs. 65,000. This expenditure was met by the Government of India and was fully justified by its result. Fortunately there was a timely rise in the price of *gur* towards the end of the season and the cultivators were able to sell their *gur* to advantage.

To facilitate the transport of cane to undamaged mills, the railways announced their intention of allowing an extremely low freight rate. It was soon found, however, that the agents of one or two unscrupulous factories were taking advantage of the anxiety of the cultivators to dispose of their cane, and buying the cane at extremely low rates. To prevent this, a Cane Marketing Board was formed, as the sole selling agent for the surplus cane. The special freight rates were confined to cane handled by this body. This body had to contend with serious difficulties owing to the shortage of railway wagons and the speed with which cane dries up when once cut, but on the whole its operations were markedly successful. In all the Board sold 2,576,107 maunds of cane and paid the cultivators altogether 4 annas 3 pies a maund, which was very little less than they would have received in the ordinary course.

Further, no less than five of the eight severely damaged factories were able to resume crushing before the close of the season, and three of them continued working well beyond the normal season.

The final result of all these operations was that only in North Darbhanga was any appreciable quantity of cane left in the hands of the cultivators. In North Darbhanga the cultivators were themselves partly to blame as they did not make full use of the bullock mills.

The choking of the wells with sand over a great part of the affected area gave rise to great alarm and to the fear that outbreaks of epidemic disease would follow the use of contaminated water. Even where the wells were not cracked, the villagers were at first afraid to go down them to clear them out. At first the boring of small tube-wells appeared to offer the most promising solution of the problem, and large numbers of these were sunk by Government, the district boards, the Calcutta Mayor's Fund and various relief organisations. It was found, however, that rough handling by the villagers made the ordinary tube-well unsuitable for village use, and although these tube-wells were invaluable in supplying the immediate need for pure water, their construction was abandoned in the later stages and the funds available devoted to the reconditioning of choked wells and the construction of new earth-ring wells. Grants were made to the local bodies for constructing wells, and Rs. 65,000 was spent direct by Government (including Rs. 50,000 from the Mayor of Calcutta's Fund). Large sums were also spent by the various non-official relief organisations.

Another question which caused the local Government the greatest anxiety was the possibility of serious floods during the monsoon. Although the results of the survey of levels were on the whole reassuring, there were good grounds for the fear that floods would be more serious than usual. Many of the river beds were choked with sand and their banks had contracted, so that the water was bound to run off more slowly than usual. An elaborate organisation was devised for flood rescue work. Six hundred boats, of which one hundred were provided by the Bihar Central Relief Committee, were built and stationed at strategic places near the danger zones. Fortunately the monsoon broke with a moderate fall and the fears of widespread floods were not realised. The organisation was, however, fully tested by floods along the Bur Gandak and Bagmati in July which compelled the evacuation of a number of villages north of Muzaffarpur. The organisation came through this test extremely well.

The total cost of repairing and rebuilding Government buildings damaged or destroyed by the earthquake is estimated in round figures to be in the neighbourhood of one crore. South of the Ganges repairs were practically completed by the rains of 1934 and new construction was started early in the cold weather. North of the Ganges repairs were carried out in the comparatively few buildings capable of repair, but there were numerous difficulties to be faced before new construction could be undertaken. Fissuring was so widespread and the general instability of the soil so great

that in no fewer than three of the damaged towns it was decided that Government buildings would have to be rebuilt on new sites some distance away. The step was only taken when Government were fully satisfied that it was not possible to rebuild on the old sites. At Sitamarhi the new buildings are to be constructed 2½ miles away at Dumra; at Madhubani a new site has been found for most of the buildings only half a mile away; at Motihari, the headquarters of Champaran district, all the buildings are to be moved to Luathaha, 3½ miles away.

As soon as the extent of the damage caused by the earthquake became known, it was clear that the district boards and municipalities would not be able to repair their losses from their own resources. In Tirhut these bodies had not only lost a large number of buildings, but had suffered vast losses through damage to road embankments and bridges under their charge. The position of many of the municipalities was particularly serious in that they had lost a large part of their income derived from the house tax. The financial difficulty was solved by the announcement of the Government of India that they would provide all the money necessary to replace the property of the local bodies and that until normal conditions returned they would provide the sums necessary to keep them running. Grants have already been made to the local bodies amounting to Rs. 29½ lakhs, further requirements during the year have been estimated at Rs. 18 lakhs and during 1935-36 at Rs. 48 lakhs. For the supervision of the vast repair and construction works involved in this expenditure, a separate post of Inspector of Local Works has been created. In his work of inspection he is assisted by two experienced Assistant Engineers. Until the rains broke work was concentrated on the restoration of communications and repair of buildings which had not been seriously damaged.

To enable private owners to reconstruct their houses financial help on a very large scale was clearly necessary. The Bihar and Orissa Natural Calamities Loans Act passed by the Legislative Council in the middle of February provided for the grant of loans to the owners of houses which had been damaged or destroyed by a natural calamity. Two classes of loans were provided. For the comparatively well-to-do the loans bore interest at 6¼ per cent and were repayable in 12 to 15 years. Persons who could not afford to take a loan bearing this rate of interest were eligible for a loan not ordinarily exceeding Rs. 1,500 on 4½ per cent repayable in from 6 to 9 years. These loans were free of interest or repayment for the first year after the advance of the money. Altogether just over Rs. 15 lakhs have been sanctioned in loans in the various districts.

But by far the largest class of earthquake sufferers were not in a position to afford to take a loan at all. For these free grants were distributed on a very large scale. A large part of the Viceroy's Earthquake Relief Fund, supplemented for this purpose by a grant of Rs. 8 lakhs from the Indian Peoples Famine Trust, was utilised for these grants. This distribution was the most complicated and difficult of the many relief operations, for the enquiries necessary were on a gigantic scale. District Magistrates were at first empowered to give grants not exceeding Rs. 300 in any one case to persons found to be too poor to take loans. Altogether just under Rs. 25 lakhs were distributed in this way, of which Rs. 10¾ lakhs were distributed in the towns. Later in the year it was seen that the distribution was not on a sufficient scale for the needs of many middle class families who could not afford to rebuild their houses. In many ways it was this class of family, accustomed to a reasonable high standard of living, which had suffered most during the earthquake. In June the committee administering the Viceroy's Earthquake Relief Fund decided to make an issue of grants of between Rs. 300 and Rs. 1,000 for such families. In the first instance Rs. 7½ lakhs were allotted to the various districts for this purpose. It was found that at first the District Magistrates were inclined not to sanction grants greatly exceeding Rs. 300. In November the committee decided to allot to middle class grants, the unspent balance of the Fund, amounting in all to some seven lakhs of rupees. The majority of this was allotted to districts of Muzaffarpur, Darbhanga and Monghyr and small allotments were made to districts of Champaran and Saran. The District Magistrates were then instructed to make their grants on more generous lines.

In addition to distributing this extensive financial assistance, Government took special precautions to ensure the supply of building materials at reasonable rates and to prevent profiteering. An adequate supply of bricks was ensured by the offer of guarantees to brick-burners and steps were taken to prevent any shortage of coal for burning bricks. It should be added that pending the rebuilding of their houses, many people in the towns were housed in temporary semi-permanent accommodation built at the cost of the Viceroy's Fund and other relief funds.

CHAPTER III.

Finance.

Financial position of Bihar and Orissa.

For the benefit of those who have not read previous reports on the province, it will be as well to recall briefly the familiar story of the deplorable poverty of Bihar and Orissa under the financial arrangements at present governing the constitution of India. The following table shows the population, revenue, and revenue and expenditure for every thousand of the population of each of the eight major provinces of India :—

Province.	Population in million according to the census of 1931.	Revenue in crores of rupees (excluding extraordinary receipts) according to budget estimates 1933-34.	Revenue per mille.	Expenditure per mille.
1	2	3	4	5
			Rs.	Rs.
Bihar and Orissa ...	37·7	5·08	1,347	1,383
Madras	46·7	17·26	3,696	3,687
Bombay	21·9	14·65	6,689	6,931
Bengal	50·1	9·26	1,846	2,259
United Provinces ...	48·4	11·50	2,377	2,369
Punjab	23·6	10·54	4,466	4,343
Central Provinces ...	15·5	4·63	2,987	2,961
Assam	8·6	2·07	2,407	2,802

These figures show that the standard of expenditure in this province is far below the level prevailing in other provinces. Unfortunately nothing that the province can do to help itself can be expected to improve the situation. It is a common criticism of the present financial settlement that the sources of revenue which are capable of expansion have been assigned to the Central Government while those assigned to the provinces are practically static. If this is true of the rest of India, it is doubly true of this province where the main sources of revenue had before the slump reached a peak

which they cannot now be expected to pass even under the most favourable circumstances for another 20 years or more.

A few words will suffice to prove the truth of this assertion. Eighty per cent of the annual income of the province comes from three sources Land Revenue, Excise and Stamps. The millstone of the permanent settlement effectively prevents any significant expansion of land revenue—for the only large temporarily-settled area is in Orissa where the revenue has recently been resettled and fixed for 30 years. The revenue from excise greatly increased in the years immediately following the reforms of 1919-20, and between the years 1926 to 1929 appeared to have reached a permanent stable level in the neighbourhood of two crores. It was recognised that the peak had been reached, and that there was no possibility of further expansion, but even the gloomiest could not have anticipated the disastrous fall in the revenue from this source which was to come in the years 1930-31 and 1931-32. There was a decline in the first year by over half a crore of rupees and the following year there was a further fall by over Rs. 20 lakhs. Drastic measures to stop illicit distillation have averted the decline, and during the year 1933-34 a slight improvement was recorded; but the most optimistic prophet cannot hope for more than a slow return with rising agricultural prices to the peak level of the pre-slump years. The raising of the scale of court-fees in 1922 accounted for a rise in the income from stamps from Rs. 87 lakhs in 1921-22 to Rs. 111 lakhs in 1929-30. The next three years saw a continuous decline. The year 1933-34 shows a slight improvement, the revenue from this source standing at Rs. 1,06,48 against Rs. 1,06,57 in the previous year. There is no reason to expect any substantial improvement in the revenue from this source, and it is certainly not possible to raise the scale of court-fees again above its already high level.

At this point we may digress for the moment to consider the central reason for the poverty of a province which does after all contain some of the most fertile lands and richest mineral resources in the whole of India. The dense population of the province holds the greater part of its wealth in the form of land. There is no important centre of commercial wealth and the majority of the big industrial concerns of the province have their headquarters and financial backing in cities outside the province. A province with these characteristics must obtain the greater part of its income directly or indirectly from the profits made out of land. Four-fifths of the province is governed by the permanent settlement which was introduced by Lord Cornwallis in 1791 at a time when Bihar itself was largely undeveloped and Chota Nagpur was an

unknown wilderness. The arguments for and against the permanent settlement have filled volumes but it may safely be said that nowhere are the arguments that it was a grievous mistake so strong as in the province of Bihar and Orissa. It has effectively barred the State from any share in the profits arising from the increasing value of land and the extension of cultivation. In Bihar the fixed land revenue bears little relation to the actual value of the land and in Chota Nagpur there is no relation at all. It has been calculated that if the natural expansion of land revenue with increasing development had not been prevented by the permanent settlement, the income of the province would now be some two crores greater than it is. Two further facts to be borne in mind are that agricultural incomes are not liable to income-tax, and that the permanent settlement is held to cover mineral rights in permanently-settled estates, so that the state takes no share in the profits derived from the exploitation of the huge mineral deposits in Chota Nagpur.

These are briefly the reasons which make substantial additions to the financial resources of the province essential. Bearing these facts in mind, we may turn to the budget and financial troubles of the province during the year 1933-34.

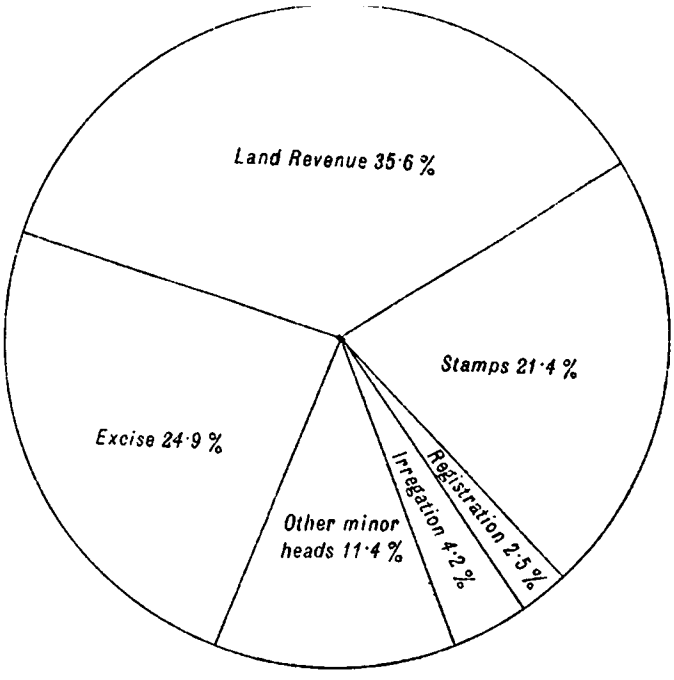
The Budget of 1933-34.

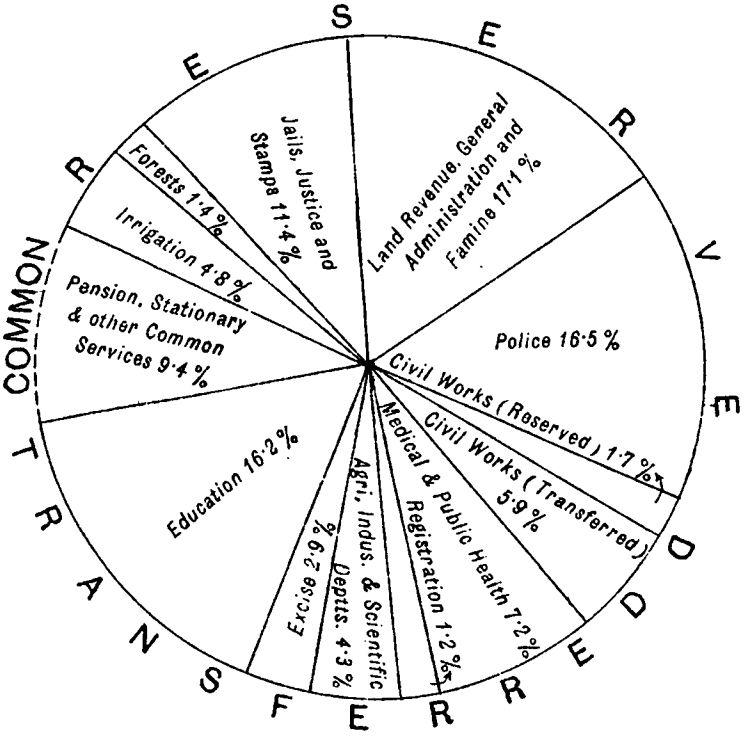
The budget estimates for the year 1932-33 had anticipated that the year would open with a balance of Rs. 27,89. Revenue was put at Rs. 5,00,08 and expenditure charged to revenue at Rs. 4,99,07. The year was therefore expected to close and the year 1933-34 to open with a balance of Rs. 29,93. Actually the opening balance for the year 1932-33 turned out to be Rs. 42½ lakhs, an improvement of Rs. 14½ lakhs over the estimate, which was largely accounted for by strenuous retrenchment efforts. As the year 1932-33 progressed both revenue and expenditure showed an increase over the estimate and in the revised estimate they were placed at Rs. 503½ lakhs and Rs. 502½ lakhs respectively. In the result the opening balance for the year 1933-34 was expected to be Rs. 52,34 made up as follows :—

	Thousands of rupees.
(1) Ordinary balance	14,34
(2) Road Fund subventions	7,02
(3) Subventions from the Imperial Council of Agricultural Research ...	13
(4) Famine Relief Fund	30,85
	52,34

The budget for 1933-34 presented by the Hon'ble Member on the 8th February 1933, starting from this point anticipated a

Revenue in B. & O.
(Actuals for 1933-34)




SEVERED HEADS
Land Revenue, General Administration and Famine 17·1 %
Police 16·5 %
Civil Works (Reserved) 1·7 %
Civil Works (Transferred) 5·9 %
Medical & Public Health 7·2 %
Registration 1·2 %
Agri, Indus. & Scientific Depts. 4·3 %
Excise 2·9 %
TRANSFERRED
Education 16·2 %
Pension, Stationary & other Common Services 9·4 %
Irrigation 4·8 %
Forests 1·4 %
Jails, Justice and Stamps 11·4 %
COMMON

Expenditure in B. & O.
(Actuals for 1933-34)

revenue of Rs. 508½ lakhs and expenditure charged to revenue of Rs. 521 lakhs. The revenue estimate was slightly more optimistic than in the previous year. Receipts under land revenue and stamps were expected to show a slight recovery. The excise revenue was difficult to forecast owing to the recent important changes in the excise system, but was put at Rs. 7 lakhs above the figure in the revised estimate for 1932-33. On the expenditure side the general measures of retrenchment embodied in the budget for 1932-33 were continued. Further savings amounting to about one lakh were effected by abolishing the post of Superintending Engineer, Son Circle, and by reorganising the Public Health Engineering, Public Works and Irrigation Departments in accordance with the recommendations of the Retrenchment Committee of 1931-32. The apparent increase in expenditure was largely accounted for by the provision of Rs. 9 lakhs for the restoration of the cut in pay (the decision to continue it not having been announced until after the budget was passed) and Rs. 6¼ lakhs for the cost of preparing the electoral rolls and holding the new election. The actual increase of expenditure was Rs. 4½ lakhs. About Rs. 9½ lakhs was provided for technically new schemes. Of this about Rs. 4 lakhs represented merely the continuance of items which it had been necessary to provide for the past few years, e.g. the temporary police forces. Another Rs. 2 lakhs was for obligatory expenditure which had been held up in the previous year but could no longer be postponed, such as the provision of Rs. 1½ lakhs for the Bhagalpur Waterworks. Expenditure which was actually new amounted to only Rs. 3¼ lakhs and of this half was for the Patna-Arrah road which was being financed from Road Fund Subventions. The budget prepared on these parsimonious lines, representing a standard of administration far below the standard of 1929, which even then was pitifully below that prevailing in other provinces, anticipated a total reduction in the provincial balances during the year of Rs. 15 lakhs.

Financial developments during the year.

Actually the year 1933-34 opened with a balance of Rs. 56,69 lakhs. The improvement was due to an increase in revenue by Rs. 2 lakhs and a decrease in expenditure by Rs. 2 lakhs over that anticipated in the revised estimate for the year 1932-33, the actual figures being Revenue Rs. 5,06 lakhs and Expenditure Rs. 5,00 lakhs. As the year progressed however it was seen that the increases anticipated in the income from land revenue and excise were not going to materialise and that there was a considerable reduction in the revenue from irrigation and taxes on income and salt. The one bright spot was stamps, the receipts from which showed a steady increase throughout the year and were estimated

in the revised at Rs. 4 lakhs better than the original estimate. In the result the revenue estimated in the revised was some Rs. 8 lakhs less than that in the budget.

Expenditure however as estimated in the revised showed a decrease of some Rs. 10 lakhs over the budget figures. This was accounted for partly by the 5 per cent cut in salaries, partly by the non-expenditure of the provision of Rs. 6 lakhs made for the elections and partly by a reduction of Rs. 3 lakhs under Jails and Convict Settlements owing to a reduction in the number of prisoners below the high level of 1932-33. These savings were to some extent counterbalanced by increased expenditure, principally sanctioned in supplementary demands, amounting in all to about Rs. 7½ lakhs.

The net result of these alterations was that in the revised estimate for the year 1933-34 the provincial balance at the end of March 1934 was estimated at Rs. 47 lakhs, of which Rs. 8 lakhs was ordinary balance and Rs. 33 lakhs famine relief fund balance.

The revised estimate discussed in the preceding paragraphs was actually approved by Government barely 2¼ hours before the earthquake threw the finance of the province into confusion. Although at the time the estimate was placed before the Legislative Council it seemed improbable that it would be an accurate forecast of the financial position of the province at the close of the year, it will be seen that actually owing to the generosity of the Government of India earthquake expenditure was largely met without increasing the current expenditure charged to revenue, while revenue was not affected to the degree that at first seemed probable.

However we may first consider the financial consequences of the earthquake, and the manner in which the burden was divided between the Government of India and the provincial Government.

As soon as the magnitude of the disaster became known, the Government of India assured the local Government of their full financial support. Their detailed plan was announced by the Hon'ble Finance Member of the Government of India in introducing the budget for 1933-34. The Government of India agreed to find the full cost of replacing damage done to the property of local bodies, and of schools, hospitals and other institutions receiving aid from the local bodies and from Government. In addition they undertook to provide the funds for the running of local bodies, whose source of income had been damaged, until normal conditions returned. The Government of India also undertook to provide half the cost of replacing the damage done to the property of the

local Government. The Government of India also met the cost of the special sugar-cane measures. The earthquake expenditure which fell on the local Government during 1933-34 was, therefore, as follows :—

(*a*) The extra expenditure incurred on ordinary items of administration including the cost of the Reconstruction Department. During 1933-34 this expenditure amounted to Rs. 1¼ lakhs and was met from revenue.

(*b*) Half the cost of reconstructing Government buildings, canals and embankments, in addition to the cost of such incidental improvements and changes as were essential in replacing destroyed buildings. The local Government's share of reconstruction expenditure in 1933-34 amounted to Rs. 1¾ lakhs and was met from revenue, but is to be recouped by a loan from the Provincial Loans Fund during 1934-35.

(*c*) Expenditure on loans to private persons for sand clearance and to assist zamindars to re-establish their agricultural business, etc. Expenditure on these loans amounted during 1933-34 to Rs. 6¼ lakhs, the major part of which was met by a loan from the Provincial Loans Fund.

The net result of these arrangements was that the local Government had during 1933-34 to meet from revenue expenditure amounting to only three lakhs of rupees which they would not have had to meet if the earthquake had not occurred. On the revenue side receipts from stamps dropped by at least Rs. 3 lakhs and that from land revenue and irrigation by at least Rs. 2 lakhs as a result of the earthquake. Against this receipts from excise were Rs. 1¾ lakhs more and ordinary expenditure in the Police, Public Works and Irrigation Departments Rs. 5¾ lakhs less than anticipated in the revised estimate. In the result the year 1933-34 closed with the provincial balances standing at Rs. 45,35, made up as follows :—

	Rs.
(*a*) Ordinary balance	7,25
(*b*) Road Fund Subventions	5,90
(*c*) Grants from Imperial Council of Agricultural Research.	4
(*d*) Famine Relief Fund	32,16
	45,35

In effect the working of the year had resulted in the reduction of the ordinary balance by over Rs. 10 lakhs.

A new financial settlement is in sight, and the province must base its hopes for the future on a more equitable distribution, which will take into account the dense population of the province and the large contribution which they make in indirect taxation to central revenues. The inadequacy of the present resources of the province is shown by the fact that in four years, despite every effort of economy and retrenchment, the ordinary provincial balance has sunk from Rs. 1,07 lakhs to Rs. 7 lakhs and is likely to be entirely wiped out during 1935-36. The position is actually much worse than these figures indicate. The low scale of expenditure of the last few years cannot be indefinitely repeated. New construction has been almost entirely held up, necessary developments have been postponed, and in fact a progressive administration has been impossible. The earthquake has still further weakened the provincial finances, for while the generous assistance of the Government of India has saved the province from financial ruin, the service of the loans taken to finance the provincial share of the earthquake expenditure, will form a considerable item in the budget for many years to come. The report of the Federal Finance Committee in 1932 accepted Rs. 70 lakhs as the addition necessary to revenues of the province to maintain the standard of administration attained immediately prior to the slump, a standard far below that attained in neighbouring provinces. Since then the financial position of the province has not improved, and this sum represents the minimum addition to the provincial revenues which would give a popular Government a reasonable chance of succeeding, when the new constitution comes into force.

CHAPTER IV.

The Legislature.

Sessions of the Council.

Sessions of the Council were held at Ranchi in August and September 1933 and at Patna in February and March 1934. In addition a special session was convened at Patna on the 15th December 1933 for the purpose of electing a President in place of the Hon'ble Babu Nirsu Narayan Sinha, who had resigned his office in October. Three candidates actually stood for election, namely Babu Rajandhari Sinha, Mr. Sachchidananda Sinha and Khan Bahadur Shah Muhammad Yahya. As a result of the voting, Babu Rajandhari Sinha was elected and the election was approved by the Governor. Rai Bahadur Lakshmidhar Mahanti continued to be Deputy President of the Council throughout the year.

In view of the conditions created by the earthquake, the usual programme for the winter session had to be curtailed. Only the most urgent items of business were taken up and every matter which could be postponed was put aside for the next session. In all, meetings were held on 16 days, of which one was devoted to the presentation of the budget, one afternoon to the general discussion of the budget, and three to the voting of demands. Of the remaining eleven days, four were devoted to the transactions of non-official business and the rest to official business.

Legislative business.

Owing to the disorganisation of the winter session, the volume of legislative business transacted was comparatively small. The only two Bills passed by the Council during the period under report were both made necessary by the earthquake. The Bihar and Orissa Natural Calamities Loans Bill 1934 was introduced and passed by the Council on the 17th February 1934. The Act provides a simple and easy method of granting loans to the owners of buildings damaged or destroyed by earthquake or other natural calamities. The Bihar and Orissa Municipal (Emergency Provisions) Bill 1934 was introduced on the 22nd March and passed by the Council on the 23rd March. This is an emergency Act designed to relieve the municipalities of some of the difficulties in which they found themselves as a result of the earthquake. The Act gives the municipalities power to remit taxes on holdings damaged or destroyed by the earthquake and also enables Government to assume partial or

complete control of municipal affairs in cases where, as a result of the earthquake, the commissioners are unable, through no fault of their own, to discharge their duties satisfactorily.

Two new Bills were introduced during the year. The Bihar and Orissa Cess (Amendment) Bill 1933 provides for the amendment of the Cess Act on two main points. As the law stands at present, the holder of any estate or tenure may apply to the Collector for revaluation, as soon as the cess valuation or revaluation is five years old. If such an application is made the Collector must revalue the estate or tenure. The Bill leaves it to revenue authorities, the Collector, Commissioner and the Board of Revenue, to decide on each individual application whether the applicant has made out a good case for the revaluation of the estate or tenure. The second important change in the law which the Bill proposes to make is that the expenses incurred in making a revaluation as a result of an application by a private individual should be borne by that person. A motion for the circulation of the Bill for the purpose of eliciting opinion thereon by the 31st December 1933 was adopted by the Council on the 30th August 1933. To prevent the lapse of the Bill, a motion for its continuation was adopted by the Council on the 14th February 1934. A Private Member's Bill, the Chota Nagpur Tenure-Holders' Rent Account (Amendment) Bill 1933, was introduced on the 5th September 1933, but a motion for reference of the Bill to a Select Committee was negatived on the same day. The Bill sought to enlarge the scope of the Rent Account Act of 1929 by allowing co-sharers in tenures in Chota Nagpur to insist on their superior landlords opening separate accounts for their fractional shares, even in cases where they had not got a definite fractional share running through the whole tenure. Further each single individual interested in the fractional share would have the right to apply, whereas under the existing law all the persons interested must apply.

The Report of the Select Committee on the Bihar and Orissa Musalman Wakf Bill 1933 was presented on the 5th September 1933, but on the same day a motion was adopted recommitting the Bill to the same Select Committee without limitation. The object of the Bill is to provide for the control of Musalman charitable and religious endowments. The Bill had undergone radical changes in the Select Committee stage and no fewer than 94 amendments were down to be moved in Council.

A preliminary report of the Select Committee on the Bihar Tenancy (Amendment) Bill 1933 was presented on the 5th September 1933.

A motion for the circulation of the Estates Partition (Amendment) Bill 1933 for the purpose of eliciting opinion by the 31st December 1933 thereon was adopted by the Council on the 5th September 1933. To prevent its lapse a motion for the continuation of the Bill was adopted by the Council on the 14th February 1934.

Resolutions.

Seventy-five resolutions were tabled for discussion but only six were actually discussed. These six resolutions were all moved by private members; three of them were carried, one was negatived and two were withdrawn. A resolution recommending the investment of the Jharia Water Board with power to appoint, suspend and dismiss its Engineer and to fix the scale of his pay and allowances was carried by 36 votes against 35. The main argument advanced by the mover and his supporters was that the Board which consists of 9 members—4 selected by mine-owners, 1 by royalty-receivers and 4 nominated by the local Government—was perfectly competent to appoint its own engineer and that his appointment by Government did not make for smooth administration, and moreover implied a distrust of the Board. The recommendation was carefully considered, but Government decided that they could not withdraw their control over the appointment of the engineer of a waterworks of the magnitude of the Jharia Waterworks, on the safety and efficient management of which depended the health and life of the large labour population of the mining area and the security of the large financial commitments of the local Government. Another resolution recommended the giving of financial assistance to the Co-operative Department for the establishment of an institute in the province for the training of workers in rural welfare and rural reconstruction. The resolution received sympathy from all sides of the House, but Government could not agree to accord their support to a nebulous scheme, the cost of which was very uncertain. While fully admitting the necessity of encouraging the rural development side of the co-operative movement, Government had to spend the limited funds at their disposal on tried and proved schemes, which were known to be a success. A promise was given that proposals from the Registrar, Co-operative Societies, which were understood to be on their way, would receive the sympathetic consideration of Government. The motion was pressed to a division and carried by 42 votes against 36. Subsequently the Registrar, Co-operative Societies, submitted certain proposals for the consideration of Government. He recommended that the Bihar and Orissa Co-operative Federation might be given a subsidy of

(*a*) Rs. 2,500 for the training of bank managers and auditors in rural welfare work and (*b*) Rs. 7,000 to repair the services of the Principal of the Durga Prasad Training Institute for a further period. Government were unable to accept either proposal, the first because of financial stringency, the second because they did not consider that the financial difficulties of the Federation were sufficiently great to justify a grant. They offered a loan of Rs. 7,000 to the Federation, but the offer was refused. A resolution recommending the introduction of legislation to fix the minimum rate at which sugar-cane should be purchased by sugar-cane factories was withdrawn after Government had announced their decision to convene a conference of representatives of the various interests involved to consider this difficult problem. A resolution recommending to Government to take immediate and adequate measures for the relief of the flood-stricken people in Orissa was withdrawn after a full description of the measures which had been and were about to be undertaken by the local Government. The floods and the measures taken to combat their ravages have already been described in Chapter I. A resolution recommending the withdrawal of the additional police quartered at Barahiya in the district of Monghyr from 1st October 1933 was negatived by 38 votes to 34 but a second resolution moving that the additional police tax levied on the people of Barahiya be realised in four equal quarterly instalments was adopted by 45 votes to 26. In effect the Council recognised that the responsibility for maintaining law and order at Barahiya must rest with Government, but there was a general desire to lighten the burden on the inhabitants of the area as far as possible. Before the second resolution was adopted, the District Magistrate was already allowing payment by instalments, whenever this concession was asked for. Government did not feel able to order that the cost should be realised in the exact manner recommended in the resolution, but instructions were issued allowing the District Magistrate to extend the period for which the collecting staff was to be maintained from the end of December to the end of February; within this period payment by instalments was permitted.

Questions.

The number of questions asked during the year was 299 against 360 in the previous year. In addition 588 supplementary questions were asked against 540 in the previous year.

One day was devoted to the presentation of the budget for 1934-35, one afternoon to the general discussion of the budget and three days to the voting of demands for grants. In comparison

with normal years the budget discussions were curtailed by seven and half days. In agreeing to this the Council showed their appreciation of the difficulties with which Government was faced and of the importance of attending to the pressing problems of relief and reconstruction. The 14th and 15th February and a great part of the 16th and 17th February were devoted to discussion of the situation arising out of the earthquake. The Hon'ble Finance Member opened the discussion, in the absence of the Leader of the House, who had met with an aeroplane accident while visiting the stricken area. He placed the Council in possession of the latest information as to the damage done and described in detail the measures which Government had undertaken to relieve the distress and repair the damage. The debate which followed was characterised by a general disposition to help in meeting the disaster which had befallen the province and by generous appreciation of the measures taken by the local Government and their officers.

Budget discussions.

The Budget was presented by the Hon'ble Babu Nirsu Narayan Sinha, Finance Member, on the 14th February 1934. It had been approved by Government at 12 o'clock on January 15th barely 2¼ hours before the earthquake altered the whole financial position of the province. The Finance Member explained that it had been impossible to make even the roughest estimate of the reduction in revenue and increase in expenditure which would result from the earthquake, and it had, therefore, been decided to present the budget in its original form. The figures were admittedly no longer an accurate estimate of the expenditure likely to be incurred or of the ways and means and financial position of the province, but they were put forward as the best available as a justification for the demands which the Council would be asked to vote.

Turning to the figures in the revised estimate for the year 1933-34, he pointed out that while the figure 5,11 lakhs for expenditure charge to revenue apparently represented an increase of Rs. 11 lakhs over the actuals for the previous year, there had not been a real rise in expenditure; of the increase, Rs. 9 lakhs represented the restoration of 5 per cent out of the 10 per cent cut in the salaries of Government officers, Rs. 2 lakhs the partial restoration of the grants to local bodies for primary education, and approximately Rs. 3 lakhs supplementary demands sanctioned in the August session. He, therefore, expressed appreciation of the efforts made by Government officers to keep expenditure at the same low level as in 1932-33, but emphasized the fact that even had the earthquake not occurred,

the administration of the province could not be continued indefinitely at this reduced rate. The net financial result of the year 1933-34 (ignoring the earthquake) was estimated to be a reduction in the total provincial balances of Rs. 10 lakhs; leaving Rs. 8 lakhs the ordinary balance and Rs. 33 lakhs the Famine Relief Fund balance, a total of Rs. 47 lakhs.

The Finance Member then turned to the budget proposals for 1934-35. Total revenue was put at 5,15 lakhs compared with last year's figure of 5,08 lakhs and total expenditure charged to revenue at 5,30 lakhs compared with last year's figure of 5,21 lakhs. The real increase in estimated revenue was Rs. 1½ lakhs, for Rs. 5½ lakhs represented a withdrawal from the excess balance in the Famine Relief Fund. The Stamp Revenue was expected to show an increase of Rs. 4 lakhs, but against this had to be set a reduction by Rs. 2½ lakhs under other heads, mainly due to reduced receipts from the Central Government on account of taxes on income and receipts from the salt additional import duty tax.

The excise revenue was estimated at the same figure as in the budget estimate and Rs. 5 lakhs better than in the revised estimate for the year 1933-34. The increase of Rs. 9 lakhs in expenditure was accounted for mainly by increase of Rs. 4½ lakhs for superannuation allowances and pensions, Rs. 2 lakhs for excise and Rs. 5 lakhs for civil works. Only Rs. 8 lakhs were provided for new schemes.

Taking into account the withdrawal of Rs. 5½ lakhs from the excess balance in the Famine Relief Fund, it was estimated that the ordinary balance would show a deficit of Rs. 4½ lakhs. If this deficit actually occurred, it would be necessary to borrow from the Government of India. The Finance Member concluded by pointing out that despite the utmost efforts of economy and retrenchment the ordinary provincial balance which stood at 1,07 lakhs on the 1st April 1930 had been entirely absorbed in four years and that now a deficit was anticipated for the first time. The normal revenue of the province was not sufficient to meet its minimum expenditure and the province was faced with a recurring annual deficit of Rs. 14 lakhs; a position which would have been serious enough, even had no earthquake occurred.

Voting of demands for grants.

The general discussion of a budget presented in such unique circumstances was necessarily rather a formality. Only two hours were allotted instead of the usual two days and even the time allotted was not fully taken. The House was anxious to devote whatever time could be spared to the far more important discussion

of the effects of the earthquake and the problems of reconstruction. The leader of the opposition offered the sympathy and support of the House to the Finance Member in his arduous and cheerless task. Other speakers made brief criticisms of the amounts allotted for flood relief in Orissa, of the absence of provision to ameliorate the condition of tenants in Monghyr, and of the provision for survey and settlement operations in Dhalbhum. One speaker criticized the presentation of the budget at such a time and said that Government should have waited until the financial effects of the earthquake were known. The Finance Member in replying pointed out that there was a statutory provision and obligation to present the budget to the Council. In concluding he thanked the House for their expression of their sympathy with him.

The detailed discussion of the budget was taken up from the 19th March and lasted for only 3 days instead of the usual 9.

The earthquake was naturally responsible for a few token cut motions; under the head Agriculture, to draw attention to the necessity of taking steps to reclaim agricultural land damaged by earthquake sand; under the head Land Revenue, to urge the necessity of suspending payment of land revenue and cess for a year in North Bihar; under the head General Administration, to draw attention to distress resulting from the earthquake in Champaran. All these motions were withdrawn after a description had been given of the measures adopted or about to be adopted by Government and of the sums allotted for relief in grants and loans.

Owing to the shortage of time, only two motions aroused any prolonged discussion or interest. The two were the following:— In the Irrigation Budget a token cut was moved against the provisions for Orissa canals to draw attention to the failure of Government to prevent floods in Orissa and to carry out many of the recommendations of Orissa Flood Committee. In reply it was pointed out that Orissa was a deltaic area in which the rivers flow in beds above the level of the surrounding country and floods could never be entirely prevented. Of the 70 projects recommended by the Flood Committee 30 had been completely carried out and 24 partially carried out. It had not been possible to carry out all the projects because of technical delays or excessive cost which could not be met in the present financial circumstance of the province. A number of Oriya members spoke in support of the motion but it was negatived.

Under General Administration the policy of the Ministry of Local Self-Government was criticized through a cut motion on the

allotment for Ministers. There were two points of criticism—(*a*) the system of nominating members to the district and municipal boards and (*b*) the supersession of the Cuttack municipality. The Ministry was able to show that in the great majority of cases the nominations followed the recommendations of the local officers, and that the Cuttack municipality had a consistently bad record for at least seven years. The motion was negatived.

Cut motions in connection with the demand for " Industries " were negatived after the Director of Industries had shown the value of the work done by the Textile Expert and the Fisheries section of the Department. Several reduction motions were moved in connection with the staff of the Excise Department but were all withdrawn after the Excise Commissioner had spoken. The inclusion of a provision for the Dhalbhum Revision Settlement Operation which had been rejected by Council the previous year was criticized, but Government were able to convince the Council that it was in the general interest that the settlement should be taken up now while the Ranchi Settlement staff was available. The only cut motion carried was with regard to the demand for Stationery and Printing to draw attention to the need for the supply of more publications, including the " Education Code ", to Members of Council.

Supplementary demands.

At the Ranchi session there was a prolonged debate on the demand for a supplementary grant of Rs. 10,000 for the Excise Department. The Department was to be reorganised in order to suppress malpractices by vendors and to check the operations of smugglers and illicit distillers. The main features of the proposals were the creation of five posts of Superintendent of Excise : the creation of nine posts of Deputy Superintendents and an increase in the number of inspectors and decrease in the number of sub-inspectors.

A number of speakers spoke against the demand, but Government speakers were able to show that the expenditure would recoup itself in increased revenue and was essential to check the downward trend of the excise revenue. The supplementary demands at the March session were passed without opposition.

CHAPTER V.

Local Self-Government.

District boards.

For the greater part of the year interest centred round the elections which were held in all districts between April and December. In most districts the Congress was the only organised political party, although in Darbhanga and Muzaffarpur the new United Party put up a well-organised and highly successful campaign. Congress adherents did not do as well as might have been expected in the circumstances, and in some districts they suffered severe defeats, notably in Manbhum and Balasore, which were formerly Congress strongholds. On the other hand, they scored a marked success by capturing all the elected seats except one on the Monghyr district board. The elections at Gaya were held towards the close of the year and excitement was so tense that armed police had to be stationed at various centres. The Congress party was defeated and their followers secured only 8 out of 30 elected seats. The elections were naturally not dominated by entirely political motives. In Shahabad, for example, caste-feeling was the prominent feature.

General.

On the whole relations between the reconstituted boards and the district officers were good. In the districts devastated by the earthquake there was a healthy spirit of co-operation and self-sacrifice in dealing with the tremendous problems which confronted both Government and the boards. Another very satisfactory feature was that the members of the boards did not waste time which should be devoted to local affairs in discussing wider political issues. None of the members or executives of the boards are reported to have been guilty of any unlawful political activities. It is unfortunately necessary to comment once again on the excessive number of meetings held by many of the boards. One board went to the length of holding 31 meetings in comparison with the statutory minimum of 12. A board which meets too frequently is bound to hamper the work of its executives.

Income and Expenditure.

The aggregate opening balances of all the boards were very slightly lower than at the beginning of the previous year. They amounted to Rs. 23,82. Since the beginning of the slump period there has been a marked decline in these balances and it is satisfactory that the decline has

now been checked. The total income of the boards amounted to Rs. 1,32,09, an increase of nearly Rs. 8 lakhs over the previous year's figure. The principal items in their income were cess, which provided Rs. 72,70, and Government grants amounting to Rs. 58,39 for Education, Medical Relief, Civil Works and under the head " Scientific and other minor Departments ". The boards have also certain minor sources of income such as pounds, ferries, fines and school fees. The income from school fees amounted to Rs. 3,50 and that under the Cattle Trespass Act to Rs. 2,13.

The receipts of Rs. 72¾ lakhs from cess represent a decline of over a lakh compared with the previous year. The decrease was most marked in the districts of Gaya and Purnea where it is attributed to sub-normal collections and in Manbhum where the depression in the coal trade was responsible. Certain big landlords of Purnea owe arrears of over Rs. 6 lakhs in cess. The depression in the coal trade has involved the boards in the two mining districts of Manbhum and Hazaribagh in serious financial embarrassments although not many years ago they were among the wealthiest boards in the province.

The contributions from provincial revenues to the boards for Education, Medical Relief and Civil Works are shown in the following table together with the figures for 1932-33 :—

	1932-33.	1933-34.
	Thousands of rupees.	
Education ...	28,73	30,45
Medical Relief ...	3,70	3,85
Civil Works ...	3,23	10,47
Total ...	35,66	44,77

The increase in the grants for Education and Medical Relief was mainly due to the restoration of half the cut which Government had been compelled to make in the previous year. The increase under Civil Works is accounted for by the special advance grants made to the district boards of the Tirhut and Bhagalpur Divisions for the immediate restoration of communications which had been shattered by the earthquake.

Including the opening balance and receipts from all sources the amount actually available for expenditure was Rs. 164½ lakhs. The actual expenditure was Rs. 131¼ lakhs so that the aggregate closing balance of all the boards was 33¼ lakhs. Rs. 4¾ lakhs of the amount represent deposits, which are not money belonging

to the boards, and the actual balance was consequently Rs. 28½ lakhs, an improvement of nearly Rs. 9 lakhs over the previous year.

Education.

The majority of the boards increased their expenditure on education and the total increase amounted to Rs. 1,30. Among the factors leading to this expansion may be mentioned the opening of new schools, the conversion of some schools to a higher status and the restoration of the cut in the pay of teachers.

The number of girl pupils rose in all classes of upper and lower primary schools, but in general the progress of female education is still greatly handicapped by the lack of female teachers in sufficient numbers and willing to work on a pay which the boards can afford to pay them. The number of Muhammadan boys receiving primary education increased but frequently the quality of the instruction imparted to them is poor owing to the employment of untrained Maulavis who scarcely know the curriculum. On the whole, progress in the sphere of primary education was reasonably good having regard to the limited resources of the boards. The Patna district board was one of the more energetic bodies in educational matters and continued to encourage co-education. The agricultural training class started by this board at Bikram is proving very popular. It is to be regretted that more of the boards have not started agricultural and technical classes.

Public Health.

The number of dispensaries maintained by district boards rose by six and the number of aided dispensaries rose by eight. New Ayurvedic dispensaries were opened in Saran and Bhagalpur and allopathic dispensaries in Bhagalpur and Ranchi. A few boards imposed prescription fees on well-to-do outdoor patients. A number of the boards took special measures for medical relief to women. The district board of Patna appointed a lady doctor for its dispensary at Bharatpura and continued to contribute towards the maintenance of the female hospitals at Barh, Bihar and Dinapore. This board also maintains three trained midwives for work in rural areas. The Gaya district board as usual paid a grant of Rs. 6,000 to the local Lady Elgin Hospital and maintained seven trained midwives who were attached to important rural dispensaries. A number of other boards spent money on the training of *dais* and *chamains*. In the majority of districts school children were examined by the local dispensary doctors or by the health officers of the boards whenever possible.

The district boards of Patna, Saran, Champaran, Muzaffarpur, Darbhanga, Monghyr and the boards in the Orissa Division continued to take active steps to combat leprosy. In Cuttack 7,171 patients were treated at 3 clinics and in Puri 1,350 patients were treated at 8 clinics.

The district boards form the front line in the provincial organisation for defence against the attacks of the various epidemic diseases; of these the most virulent are cholera, plague, smallpox and malaria. The incidence of cholera and plague was comparatively light and affected in a severe form only certain districts of North Bihar and in the case of cholera the districts of Cuttack and Puri also. Recourse was had as usual to anti-cholera and anti-plague inoculations, houses and wells were disinfected and other prophylactic measures were taken. The results obtained from the use of bacteriophage in certain areas as a specific against cholera were so encouraging that arrangements have been made for using it on a much larger scale in future. Smallpox was active in the districts of the Patna and Tirhut Divisions and also in Monghyr, Hazaribagh, Palamau, Cuttack and Puri. Primary vaccinations and re-vaccinations were performed more extensively than in the previous year and additional temporary vaccinators had to be employed for the purpose. In pursuance of the policy which has been followed for some time of gradually transferring the responsibility for vaccination work to the district boards, the Government vaccination inspecting staff were withdrawn from most of the remaining districts during the year.

Veterinary services.

The expenditure of the boards on veterinary services decreased by Rs. 30,000. The decrease appears to have been largely due to a substantial reduction in the price of sera and vaccine. Field dispensaries continued to be very popular, but there were no important developments. In most districts stud bulls were maintained for the improvement of the breed of cattle in the locality. Some of the boards awarded scholarships to students at the Patna Veterinary College.

Civil Works.

Financial stringency continued to restrict expenditure on civil works. The total expenditure fell by over a lakh to Rs. 45¼ lakhs, of which nearly Rs. 4 lakhs was spent on buildings and Rs. 30½ lakhs on communications, the balance being spent on establishment and miscellaneous items. The decrease would have been even greater had it not been for the special grants made to district boards in Tirhut for the repair of communications and restoration of damage caused by the earthquake. No original works of major importance were

completed by any of the boards, and the bulk of the expenditure was incurred on repairs and maintenance of roads. In general the condition of the roads is fairly good except in Hazaribagh and Manbhum where the financial difficulties of the boards are responsible for deterioration. In Patna and Gaya the enormous volume of motor traffic makes it difficult for the boards to maintain the roads in repair with the amount of money which they receive from motor taxation. Government have under consideration the question of making additional grants to boards where these exceptional conditions exist.

The earthquake.

During the closing three months of the year the circumstances of all the district boards in the Tirhut Division and of the Patna, Purnea, Bhagalpur and Monghyr boards were entirely abnormal owing to the earthquake. A general account has already been given in an earlier chapter of the damage done by the earthquake and of the generous offer of the Government of India to meet the cost of restoring the local bodies to their pre-earthquake conditions. In the districts north of the Ganges the boards had suffered enormous damage not only from the destruction of their own buildings and of their dispensaries, schools and other aided institutions but also from the effect of the earthquake upon bridges, culverts and roads. South of the Ganges the damage was mainly confined to buildings. It has been estimated that Rs. 10 lakhs will be sufficient to cover the cost of restoring earthquake-damaged property belonging to the boards south of the river; for the boards in the Tirhut Division, the estimate will probably be six times that amount. Naturally little could be done to repair this extensive havoc during the remaining 2½ months of the year and work was largely confined to urgent restoration of roads and bridges and repairs to buildings which had not been badly damaged.

Water hyacinth.

In Bihar and Chota Nagpur water hyacinth does not present a very serious problem because although it is found in neglected tanks and marshy lands, natural causes appear to prevent it spreading on a large enough scale to become a real menace. In the three coastal districts of Orissa the weed flourishes and is most difficult to eradicate. Some years ago the menace had grown to an alarming extent and numerous tanks and waterways were completely clogged. A vigorous campaign in the three districts particularly in Cuttack, did much to remove the nuisance. During the year the three boards did not pay as much attention as usual to the problem, and none of them spent the special grants made by Government in full. It is necessary to sound a warning against any neglect in this matter,

because the weed has not been extirpated and might become as serious a menace as ever in a very short time.

Local boards.

The local boards were reconstituted during the year. In general their powers and functions were the same as during the previous year. The district board of Monghyr had amalgamated the entire engineering staff of the district in the previous year and this system was in force throughout the year. There was some difficulty over the working procedure, although the scheme resulted in some economy. The district board of Bhagalpur have sanctioned a similar scheme.

Union boards.

There were 147 union boards, of which more than half were in the Tirhut Division. These boards form small units of local self-government in rural areas. Nearly all the boards are responsible for maintaining the village police, the payment of their salaries and the assessment and collection of the chaukidari tax for this purpose. Many of them also administer such local affairs as primary education, conservancy and sanitation, the supply of water for domestic purposes and the construction of roads, footpaths and bridges. The funds for these more advanced responsibilities are derived from grants from the district boards and from union tax imposed by the board itself on the owners and occupiers of buildings according to their circumstances. The boards are generally reluctant to impose the unpopular union tax and consequently their activities in the direction of local self-government are greatly handicapped. In the union boards which do impose union tax the average amount was only Rs. 748, in Tirhut the average amount imposed was only Rs. 296. The average grants made by district boards were Rs. 468 in Tirhut, Rs. 3,933 in Patna Division, Rs. 2,346 in the Bhagalpur Division, Rs. 1,663 in the Orissa Division and Rs. 878 in the Chota Nagpur Division. The activities of the boards are hampered by their limited resources, party factions and in some cases apathy. Unfortunately the district boards do not as a rule take much interest in the union boards or encourage them when they are doing useful work.

Municipalities.

There are 61 municipal bodies in the province. Two of the more important, Patna and Monghyr, had been suspended for maladministration before the opening of the year under report and placed in charge of special officers. Fifty-five elect their own chairman and in the rest the chairman is a nominated official or non-official. Since official control was relaxed some ten years ago the majority of the boards have failed lamentably in their fundamental duty of tax collection,

and on the whole the level of administration has been low owing to party factions and the lack of public spirit. There were no marked signs of improvement during the year, but as the majority of the municipalities in Bihar were placed in great difficulties by the earthquake, it is not necessary to dwell on this point. During the year Government were compelled to supersede the Cuttack municipality owing to the break-down of the administration through party factions: collections were in heavy arrears and the municipal commissioners were indifferent to advice from Government.

The earthquake.

The effect of the earthquake upon municipalities was even more severe than upon the district boards not only because urban areas suffered more than rural areas, but also because they were temporarily deprived of a large part of their chief sources of income, the taxes on holdings and conservancy. The financial problem was solved by the offer of the Government of India to bear their losses, and by the passing of the Bihar and Orissa Municipal (Emergency Provisions) Act to deal with remissions of taxation. The municipalities which were most severely affected were Muzaffarpur, Sitamarhi, Motihari, Darbhanga and Madhubani in the Tirhut Division and Monghyr outside that Division. In all these towns the damage amounted almost to complete destruction. The immediate problems were to clear the streets of debris, to make emergency conservancy arrangements, to prepare temporary shelters for the homeless, and to take precautions against the outbreak of epidemics. The municipal commissioners in general co-operated whole-heartedly with the district officials and the various relief societies in dealing with these problems. In the less severely-affected towns, some of the more capable municipal bodies including those of Chapra, Siwan, Roserah and Samastipur had even by the end of March recovered from the shock and resumed collections to a creditable extent.

Income and Expenditure.

The total income of all the municipalities rose from Rs. 38,69 to Rs. 39,72. While the receipts from municipal rates and taxes and other municipal fees fell by over Rs. 2 lakhs largely owing to the destruction of holdings in Tirhut, there was an increase of nearly Rs. 3 lakhs under the head "Grants and Contributions" owing to grants from the local Government and His Excellency the Viceroy's Earthquake Relief Fund. The earthquake did not have a great effect upon expenditure as the year closed before reconstruction work was really begun. In the result, the closing balance increased by Rs. 4,27 to Rs. 12,05. There was an increase of over Rs. 1½

lakhs in the closing balance of Patna City municipality alone owing to the sale of Government securities in which grants for a scheme for flushing drains and accumulated interest on the water-supply grants had been invested.

Outdoor administration.

The conservancy and drainage arrangement in the municipalities have always been poor. There was little improvement during the year and the only scheme of importance started was the drainage scheme for the west end of Patna City which had been sanctioned at a cost of over Rs. 9 lakhs. Elsewhere expenditure on drainage was limited to repairs and minor improvements. In Cuttack the drainage arrangements and cesspits are particularly unsatisfactory.

A piped water-supply is maintained by a few of the municipalities including the Patna Administration Committee and the Patna City municipality. In Patna the extension of the water-works scheme to the City area is in progress and is expected to be completed by the end of 1935. The water-supply reorganisation schemes at Puri, Bhagalpur and Muzaffarpur made satisfactory progress during the year although in Muzaffarpur the earthquake caused considerable damage to the works. In Tirhut many of the municipalities spent money on cleaning wells choked with earthquake sand and three of them, Samastipur, Darbhanga and Roserah, made extra provision for the sinking of tube-wells.

Municipal roads are not generally maintained in good repair, but there are reported to be signs of improvement in Patna Division; particularly in Patna City where the improvement is due to Government undertaking the maintenance of certain important roads on condition that the municipality spends not less than Rs. 50,000 a year on the other roads.

CHAPTER VI.

Education.

General.

During the year under review the number of recognised schools decreased by 185 but the number of pupils attending them rose by 8,837. The decrease was entirely due to reduction in the number of primary schools, and there was actually an increase of 49 in the number of high and middle schools. There was an increase of 363 in the number of unrecognised schools.

The total expenditure on education rose from Rs. 167 lakhs in 1932-33 to Rs. 169 lakhs in 1933-34. The increase in expenditure from public funds was actually nearly Rs. 4 lakhs. The increase is due to the partial restoration of the cuts from the pay of Government officers and from the grants to local bodies for primary education. There was a regrettable decrease in the income from private subscriptions by approximately Rs. 1½ lakhs.

The number of primary schools of all classes for boys and girls, both Indian and European, fell from 27,426 to 27,173 but the number of pupils attending them rose from 891,231 to 895,164. Direct expenditure on them rose from Rs. 55,14 to Rs. 55,43, the increase being largely due to the reduction in the 10 per cent cut in the recurring grants to local bodies for primary education to 4.22 per cent.

Primary education.

For many years stress has been laid in this review on the failure of primary education in this province to make any advance in its principal object, the removal of illiteracy among the masses. While faulty teaching and unsuitable methods have played a large part in this failure, the most unsatisfactory feature has been the high proportion of boys who leave the primary schools without ever progressing beyond the lowest classes and thus fail to obtain any benefit at all from the money spent upon them. The following table will show that in the last six years there has been a slow but steady improvement in the distribution of pupils over the various classes :—

Year.	Percentage of Indian boys in classes I—V who are in—				
	I	II	III	IV	V
1927-28	58·3	18·6	13·4	5·7	4·0
1932-33	52·2	20·7	15·2	6·8	5·1
1933-34	51·0	20·8	15·6	7·2	5·4

The Director of Public Instruction also reports that better work is being done in primary schools and that some success has been achieved in breaking the monotony and dullness of school work for beginners by the use of manuscript word cards, locally prepared reading sheets and beautifully-illustrated simple stories and counting sheets.

However, the general position in regard to primary education gives little ground for satisfaction. In the circumstances, the most important event of the year has been the publication of the report of the Primary Education Committee which concluded its labours in September 1933 after sitting for 2½ years. Government have decided to adopt the new syllabus outlined by the conference for the lower and upper primary schools. The new syllabus will cover six years in all instead of five and will include a lower primary course of four years instead of three. Experience has shown that four years is the minimum period of schooling required to establish literacy. The new courses were introduced in January 1935 and it is hoped they will prove an important step in the advance to wipe out illiteracy.

The Committee passed a number of other important resolutions on various aspects of primary education. Among their recommendations were the following :—

Both boys and girls should join the primary schools as soon as possible after their fifth birthday, and in villages which had no separate girls' school no boy should be admitted to the lowest class after he had reached the age of eight. Co-education should be encouraged as much as possible in the early stages, but it might be desirable to open a separate girls' school if there were at least 20 girls available and also a competent woman or suitable male teacher. *Pardah* schools should continue as at present, and every effort should be made to make them efficient with a view to the removal of illiteracy among girls who by tradition observe *pardah*. It was agreed that it is desirable to aim at common schools for Hindus and Muhammadans but no decision was reached on the further question of whether such schools are practicable. More adequate facilities should be given for the education of Muhammadans, the depressed classes and other educationally-backward people. Free and compulsory primary education, first for boys and then for girls, should be the goal. The conference recognised that this goal was impracticable at present but as a first step they suggested that compulsion might be applied in restricted areas round satisfactory primary schools, and that parents who voluntarily send their boys to school should be compelled to keep them there until they complete the course of class III.

A scheme was placed before the Committee for the introduction of free and compulsory primary education. The impracticability of the scheme under present financial conditions will be clear when it is stated that the annual recurring cost, excluding capital expenditure, was estimated at at least 1½ crores. Moreover about 50,000 teachers and 800 sub-inspectors of schools would be required.

The recommendations of the Committee were under the consideration of Government at the close of the year. Another factor giving ground for hope of an improvement in primary education in the future is the revival of the post of special officer for primary and girls' education.

Compulsory primary education.

The experiment of free and compulsory primary education continued in the Ranchi municipality and the Banki Union and satisfactory progress was recorded. In Ranchi nearly 88 per cent of the boys of compulsory age attended school and there was an improvement in their attendance from 92.5 to 93 per cent.

Secondary education.

The total number of secondary schools of all classes rose from 971 to 1,020 and the number of pupils attending them from 139,062 to 143,243. The number of high schools rose from 174 to 187. Direct expenditure on secondary schools rose from Rs. 42,86 to Rs. 45,58. The economic depression is partly responsible for the growth in the number of secondary schools inasmuch as the dearth of employment forces many graduates and under-graduates in villages and towns to take up teaching on very low rates of pay.

Since 1928 when the public Middle School Examination was extended to middle English schools it has been recognised that boys often leave the middle English schools and join the high schools just before they reach the middle standard in order to shirk a public examination. There are undoubted advantages in introducing a common standard of examination for pupils who pass the Middle School Certificate Examination and those who pass the annual examination of class VII in high schools. Government decided that with effect from the examinations of 1934 the School Examination Board should set question papers for class VII in high schools identical in standard with those set for the Middle School Certificate Examination. The marking of the papers in the high schools will be done by the teachers in each school and the examination will not be a public one.

The present Matriculation Examination has been criticised in various quarters, and the University and Board of Secondary

Education have now appointed a joint committee to consider the present Matriculation Examination in all its bearings, the courses of study and books prescribed, the methods of setting questions and examining answer papers, and to report on the causes of failure of the examination, and the possibility of making it serve as both a final school examination and a test for admission to University classes.

Vocational training.

Lack of funds again prevented any marked improvement in the range of instruction at both high and middle schools. The agricultural classes attached to the middle English school at Bikram continued to form part of the high school into which the school developed last year and music was introduced as an optional subject in the Marwari *pathshala* at Bhagalpur.

Practical training in elementary agriculture was given in connection with school gardens in some of the middle schools in Sambalpur and paddy cultivation was undertaken in the mission middle school at Kairabani in the Santal Parganas.

University and collegiate education.

The Hon'ble Sir Stewart Macpherson, Kt., C.I.E., was succeeded as Vice-Chancellor of the Patna University by the Hon'ble Mr. Justice Khwaja Muhammad Noor, C.B.E., on the 22nd August 1933. The University sustained a great loss in the death of Sir Saiyid Muhammad Fakhruddin who was a Life Fellow of the University. During the year the honorary Degree of Doctor of Law was conferred on the Hon'ble Sir Ganesh Datta Singh, Kt., Minister of Local Self-Government. The regulations of the University which had been thoroughly revised and redrafted by Mr. J. A. Samuel and Mr. G. E. Fawcus, were approved by the Senate in an amended form.

There was a slight decline by 154 in the number of students enrolled at the Arts and Science colleges. The decrease affected all colleges except Patna College, the Science College and the Diamond Jubilee College.

In July 1933 Patna College and the Greer Bhumihar Brahman College at Muzaffarpur were admitted up to the I.A. standard in Hindi as a principal subject, the Ravenshaw College was admitted in Oriya as a principal subject up to the I.A. standard, and the Bihar National College was admitted in Economics to the B.A. pass standard. College societies continued to flourish. At Patna College several lectures were delivered by members of the staff and outsiders, in addition to the usual papers and discussions, and at the Greer Bhumihar Brahman College a new

photographic society came into existence. Discipline among the students were generally very good and at several colleges there were encouraging signs of the growth of corporate life. At Ravenshaw College the number of boarders increased from 198 to 248.

The Sir Ganesh Datta Singh Trust Fund.

A noteworthy event during the year was the creation by the Hon'ble Sir Ganesh Datta Singh, Kt., of a trust fund of two lakhs of rupees. The Fund is to be administered by the Vice-Chancellor of Patna University and his successors. The income of the Fund is to be devoted mainly to the granting of loans for study in India and abroad in scientific, medical, engineering and legal subjects and studies tending to develop industry and agriculture in the province; preference is given to women and to students from backward communities. The balance is to be devoted to the construction of medical and educational buildings, including hostels and residential quarters.

Oriental studies.

The increasing popularity of Sanskrit education is shown by a further rise in the number of Sanskrit *tols* and *pathshalas*. The number of recognised *tols* rose from 316 with 10,048 pupils to 339 with 10,723 pupils and the number of recognised *pathshalas* rose from 774 with 21,014 pupils to 793 with 21,214 pupils.

The Director of Public Instruction reports gratifying improvement in the daily attendance, discipline, examination results and general work of a number of Sanskrit *pathshalas* and he attributes this to the combined efforts of ordinary and special inspecting officers.

Training of teachers.

For the training of teachers Government maintains colleges at Patna and Cuttack, five secondary training schools and seventy-four elementary training schools. Forty-three students were admitted this year to the Patna Training College against fifty-five last year and twenty-two were admitted to the Cuttack Training College. A short course for actual teachers was held at Patna in April before the college closed for the summer holidays.

The five secondary training schools each admit annually 30 students, of whom 20 receive stipends; the school at Ranchi has also a Bengali section to which 15 students, including 10 stipendiaries, are admitted. The total number of students rose this year from 252 to 261. In December 1933 the experiment was tried of deputing head teachers of elementary training schools to the Bhagalpur Secondary Training School for a refresher course,

The experiment has been a success and will be repeated next year. The number of elementary training schools managed by Government fell to 74 as the school at Khagaria was closed. Government are still not in a position to give effect to the scheme for the reorganisation of these schools, although the Primary Education Committee considered it important that this should be done as soon as possible.

Female education.

Further encouraging progress was made during the year in the education of Indian girls and women. The number attending girls' schools rose from 74,876 to 75,960 while there was also a remarkable increase from 58,500 to 63,926 in the number attending colleges and schools for boys. The advance in co-education is particularly satisfactory as co-educational schools almost invariably provide better teaching at less cost.

The most unsatisfactory feature of feminine education lies in the primary schools where conditions are often deplorable owing to the paucity of trained and qualified women teachers. No progress is possible in the many schools where local bodies appoint unqualified teachers, women and men, who have not even reached the primary standard.

Muhammadan girls and women are particularly backward and their education is a problem as their guardians seldom show any interest in their education after they have reached the middle stage. There are only 37 Muhammadan girls in the two high schools at Bankipore and Cuttack.

During the year there was strong competition for the Lady Stephenson diplomas in needlework and hygiene and the task of awarding them has now been taken over by the Bihar and Orissa Council of Women. Music and Domestic Science are now being taught in the Government high schools at Bankipur and Cuttack as subjects for the Matriculation Examination. The Girl Guide movement is gaining in popularity : Blue Bird Flocks and Guide Companies have been started in all the high schools.

Education of Europeans.

There are now five secondary schools and fifteen elementary schools for Europeans. Two of the secondary schools are for girls. The total number of pupils fell from 1,613 to 1,540. The ten per cent cut in the free boarding grant for orphan and destitute Anglo-Indian children was restored. In accordance with the recommendation of the Round Table Conference a provincial board has been constituted for the supervision of Anglo-Indian and European education.

Education of Muhammadans.

The number of Muhammadans under instruction in the province fell from 152,234 to 151,195. This decline occurred entirely in one division which had been badly affected by the earthquake. There was a slight fall in the number of recognised *Madrasas* and *Maktabs* and in the number of pupils attending them.

The education of special classes.

(*i*) *Aborigines.*—The number of Christian aborigines under instruction rose from 32,680 to 33,219 and that of other aborigines from 44,238 to 44,691. The aboriginal population of the province as recorded at the 1931 census numbers 298,116 Christians and 4,002,091 non-Christians, so that while approximately 11 per cent of Christian aborigines are attending schools only just over 1 per cent of non-Christians are doing so. This is a tribute to the striking work of the missionaries, whose efforts are also evinced by the far greater interest in higher education shown by Christian aborigines. This is clearly shown by the table below :—

Stage.	Christian.		Non-Christian.	
	1932-33.	1933-34.	1932-33.	1933-34.
In Colleges	45	43	3	3
In the high stage	732	774	166	155
In the middle stage ...	1,967	2,022	813	851
In the primary stage ...	28,700	28,916	41,093	41,047
In special schools	944	922	149	195
In unrecognised schools	292	542	2,014	2,440

Schools specially maintained for aborigines number eighteen in Tirhut, thirteen in Orissa and two in the Patna Division. It is not necessary to maintain special schools in the other divisions and Angul because the aborigines in large areas form the bulk of the population. The special staff for the inspection of schools for aborigines remains unchanged and consists of one deputy inspector and twelve sub-inspectors.

(*ii*) *Depressed classes.*—A jump of nearly 9,000 in the number of the depressed classes under instruction marked a big advance in the movement to uplift these classes. The numbers receiving education are now 58,187. There has also been a considerable increase in the special schools for these classes, their numbers rising from 282 to 323.

The Primary Education Conference made a number of recommendations for the removal of the educational disabilities under which the children of the depressed classes labour and Government have these recommendations under consideration at present. The appointment of the five special inspecting officers for the education of the depressed classes has been extended for a further period of two years from January 1934.

The pupils of the depressed classes have been exempted for a period of three years from the payment of seat rent and furniture rent in the hostels attached to Government schools. At the Angul High School twenty stipends of the value of Rs. 3 each a month have been created for the period from the 1st March 1933 to the end of 1936; at other schools ten stipends of the value of Rs. 6 each a month or Rs. 3 if the boy is living with his parents have been created for the period from the 1st July 1933 to the end of the year 1936.

Criminal tribes.

There are 252 children of members of criminal tribes at school out of a total population of 5,996. There are seven special schools for these children, two in the Tirhut Division, one in Chota Nagpur and four in Bhagalpur.

Hazaribagh Reformatory School.

There was a further decline in the number of boys at the school from 210 to 181. The school has accommodation for 400 boys, and the fall in number must necessarily increase the cost of each pupil. The school farm was abolished from 1st March 1934 and the cane-work class from 1st January 1934.

Damage done by the earthquake to schools and colleges.

The earthquake occasioned widespread damage to school and college buildings in Bihar and caused great inconvenience and dislocation of work, though normal working was re-established fairly quickly in the majority of cases. The annual Matriculation, I.A., I.Sc., B.A. and B.Sc. Examinations of Patna University had to be postponed and also the examinations in the Faculties of Medicine and Engineering. Fortunately though the damage to buildings was so great, loss of life was rare. However, the deaths of 35 school children were reported from Monghyr and in one school alone nearly 20 children were overwhelmed with their teacher.

Bihar and Orissa Council of Women.

The Council continued its activities in the cause of women and social improvement, under the Presidentship of Lady Sifton. Mention has already been made of service rendered by the Council in undertaking to conduct the examination for the Lady Stephenson

Diplomas in needlework and hygiene. A new sphere in which it is hoped the Council will be able to offer useful service is in connection with the nomination of women to municipal and other local bodies. With the approval of Government a letter has been sent to all District Officers asking them to consult the Council whenever such nominations have to be made. The main concern of the Education Sub-Committee has been the improvement of primary education. Frequent visits have been made to the sixteen schools under the Committee and every effort has been made to encourage teachers to adopt vivid and interesting methods of instruction, particularly in the case of geography and history. An appeal has been made to the Municipal Board to open at least one model primary school. Useful work has also been done in propagating knowledge of first-aid and home-nursing.

CHAPTER VII.

Public Health and Medical Relief.

Public health.

This chapter is concerned with the work of three departments, on which depends the general health of the province—the Public Health Department, the Engineering Branch of the Public Health Department and the Medical Department. These three organisations are entirely separate and approach the same object by different methods. The Public Health Department endeavours to prevent and control diseases, particularly epidemic diseases, by prophylactic measures such as vaccination, inoculation and educational propaganda; the Engineering Branch of the Public Health Department deals with large schemes of water-supply and drainage: while the Medical Department is primarily concerned with the alleviation and cure of diseases.

For the purpose of public health administration the whole province is divided into three circles—South Bihar, North Bihar, Chota Nagpur and Orissa. Each of these circles is under the charge of an Assistant Director of Public Health, working under the Director of Public Health. Their function is to investigate epidemics, suggest measures of control and to see that adequate action is taken. Their duties also include the systematic inspection of all local bodies and high schools as well as fairs and *melas*. Working under them there are five school medical officers for the inspection of schools and also a lady school medical officer for girls' schools. To meet emergencies, there is a permanent staff of reserve medical officers of health of the Assistant Surgeon grade who are detailed on demand to any district in the province. When a serious epidemic occurs, epidemic doctors of the Sub-Assistant Surgeon class are employed temporarily.

To complete the framework of the organisation to prevent and control epidemics every district board should have a proper health organisation scheme with a fully-qualified health officer in charge. Progress has been made towards the attainment of this ideal in recent years, and the number of district boards which have proper schemes now amounts to twelve. Six of these boards have been lent Government paid health officers and three others receive contributions from Government equal to half their total expenditure on health schemes. Only the district boards of Darbhanga and Purnea pay their health officers entirely out of their own funds.

District boards which have no proper health organisation usually maintain a small health staff but as soon as an epidemic becomes serious they have to requisition doctors from Government. The result is that effective action to combat an epidemic is only taken after some delay. Of the municipalities, only five have employed fully-qualified health officers, and of these the officers at Patna and Puri receive their pay from Government. The financial condition of the municipalities does not offer much hope of an improvement in this respect for many years to come.

Special measures are taken at all important fairs and festivals. The most prominent are the *Snan* and *Rathajatra* festivals at Puri, the *Pitripaksh mela* at Gaya and the annual fair at Sonepur. At all these festivals elaborate precautions were taken to purify the water-supply and choleraphage was distributed freely through the drinking water. At Puri over 38,000 anti-cholera inoculations were performed. Largely owing to these precautions there were only a few sporadic cases of cholera during the festival. At Sonepur a special attempt was made to run an anti-venereal disease campaign, for at this festival prostitutes gather in large numbers and are responsible for disseminating venereal diseases to large numbers of the public who visit them. Popular lectures illustrated with magic lantern slides, explaining the modes of infection and methods of prevention of venereal diseases were delivered at different places.

Health statistics.

During 1933, the province was not visited by any severe epidemic and on the whole the general health of the people was satisfactory. Although there was a slight rise in the total number of deaths as compared with the previous year, the death-rate still compared favourably with the average death-rate for the last ten years. The total number of deaths was 833,397 as compared with 775,945 in the previous year. The death-rate was 22.1 per thousand as compared with 20.6 in 1932, 26.6 in 1931 and 23.7 the average for the last ten years. The birth-rate for the year was 35.72 per thousand as compared with 33.8 in 1932 and 33.9 in 1931. The excess of the birth-rate over death-rate in the province was 13.6 as compared with 13.2 in the previous year. The total infant mortality rose from 128.8 to 135.2. As usual the mortality rate is greater in urban than in rural areas.

As has been noted in previous reports the arrangements for the registration of births and deaths are far from satisfactory but it is not possible to contemplate any radical improvement at present. The registration of births and deaths is compulsory in the 58 municipal towns in the province but not in rural areas. Everywhere

except in a few of the bigger municipalities the reporting agency is police and they are dependent on the information supplied by chaukidars which is frequently inaccurate. It is hoped that in time most municipalities will relieve the police of the responsibility of collecting and registering accurate vital statistics. In Patna the health officer of the municipality has already been made registrar of vital statistics while in Ranchi, Puri, Gaya, Chapra and Muzaffarpur both municipality and the police report the statistics separately.

The following statement compares the mortality rate from the principal diseases with the average rate for the past ten years :—

	Urban.		Rural.		Combined.	
	Ten years' average.	1933.	Ten years' average.	1933.	Ten years' average.	1933.
Cholera	1·0	0·3	1·5	0·5	1·5	0·5
Smallpox	0·5	1·6	0·4	1·1	0·4	1·1
Plague	0·4	0·01	0·2	0·04	0·2	0·04
Fever	8·2	6·2	16·4	15·6	16·1	15·2
Dysentery and diarrhœa ...	0·8	0·7	0·5	0·4	0·6	0·4
Respiratory diseases ...	0·5	0·6	0·2	0·1	0·2	0·2
Injuries	0·4	0·4	0·3	0·3	0·3	0·3
All other causes ...	5·1	4·3	4·4	4·3	4·4	4·3
Total ...	16·9	14·3	24·0	22·4	23·7	22·1

It will be seen that there was a reduction in the number of deaths as compared with previous ten years' average from all diseases except smallpox and cholera.

Cholera.

The total number of deaths from cholera in 1933 was 17,514 as compared with 9,348 in 1932. There was a mild epidemic in North Bihar at the close of the monsoon but as usual most of the deaths occurred in Orissa. In the districts of Cuttack and Balasore the disease was prevalent throughout the greater part of the year but was kept under control owing to the prompt measures taken by Government officers and local bodies.

Cholera is a disease the onset of which is so virulent that the only hope of reducing the death-rate in future years lies in the organisation of preventive measures rather than in the discovery of any specific cure. The position will not be really satisfactory until every district board has a health officer and suitable health staff, so that an incipient epidemic can be checked at the very outset. In recent years great progress has been made by the development of inoculation and bacteriophage. Government maintain large stocks of cholera vaccine and the demand for it steadily increases. Inoculation is no longer regarded with suspicion by the villagers; on the contrary, not infrequently people ask for inoculation of their own accord at the approach of cholera season. The use of bacteriophage for the prevention and cure of cholera is still the subject of experiment and research. For the last three years it has been used as the only method of prevention and treatment of cholera in the districts of Purnea and Muzaffarpur, and the results obtained have been so encouraging that in 1933 the experiment was extended to the districts of Patna and Gaya. The results obtained this year give further proof of the value of choleraphage both as a cure for the disease and an effective method of stopping an outbreak. In the districts of Saran, Champaran, Darbhanga and Bhagalpur, 4,862 people were attacked with the disease; of these, 3,205 died, that is to say about 65 per cent. In the district of Purnea and Muzaffarpur 1,596 people were attacked and 595 or 39 per cent succumbed. These figures are even more satisfactory than would appear because a very large proportion of the people who died in the districts of Purnea and Muzaffarpur had not been treated with choleraphage. Amongst the persons treated with the phage, only 22.5 per cent died in Purnea and 13.6 per cent in Muzaffarpur. In Purnea the average time taken to stop an outbreak completely after the use of phage was 3.26 days. 63 per cent of the outbreaks were stopped within two days and 84 per cent within seven days. The results in Muzaffarpur were rather better owing to the more extended use of the phage. 67 per cent of the outbreaks were completely stopped within two days and 77 per cent within five days after the use of phage. These results are highly encouraging and as bacteriophage possesses the additional advantage of being cheap and easy of administration, its use has been extended as far as possible throughout the province.

Smallpox.

As had been anticipated 1933 was a bad year for smallpox and the number of deaths from this disease rose from 16,466 in 1932 to 42,674. The figures serve to throw light on the unsatisfactory vaccination state of the people. Smallpox is one of the few diseases which it is

possible entirely to prevent but unfortunately vaccination is not yet a popular measure. Although when the disease is prevalent, people are willing to be vaccinated and to allow their children to be vaccinated, yet when the incentive of the disease is lacking there is considerable prejudice against the operation. Primary vaccination has been made compulsory for many years in all municipal towns but provisions of the Act are not rigidly enforced and in every municipal town a large number of unvaccinated children and adults are to be found. The public health staff have devoted much of their efforts towards overcoming the ignorance and apathy of the public in this matter. A satisfactory feature is that the district boards are gradually assuming the responsibility for the control of vaccination in rural areas and almost all the district boards with health organisation schemes have taken over this duty.

Plague.

One thousand six hundred and thirty-five deaths occurred from plague in the province. Of these, 616 occurred in Muzaffarpur and the remainder in Saran, Champaran, Darbhanga and North Monghyr. There are certain tracts in these districts where plague is epidemic and appears every year with the approach of the winter season. The usual measures were taken to prevent the spread of the disease. Twenty-five thousand one hundred and fifty-four anti-plague inoculations were performed and epidemic doctors were deputed by Government on duty in affected areas.

Malaria.

The number of deaths from fever was 574,548 against 564,666 in 1932. Fever may include any disease which is characterized by a rise of temperature and it is a matter of conjecture only as to what proportion of these deaths were caused by malaria and its after-effects. The total number of patients treated for malaria in hospitals and dispensaries was 882,463 against 1,057,842 in 1932. The disease is responsible for more sickness than any other single disease in the province. It occurs in every district but is particularly virulent in Purnea, North Bhagalpur, Singhbhum and large portions of Orissa. Malaria is another of the diseases for which we possess a powerful remedy, the use of which is obstructed by prejudice and ignorance. Quinine and its derivatives are not popular among the masses and although tablets packed in small glass tubes have been on sale at a small price at the various post offices for many years the amount purchased annually cannot be regarded as satisfactory.

Kala-azar.

The total number of patients treated for kala-azar in hospitals and dispensaries was 55,044 against 55,344 in 1932. This disease is mainly prevalent

in the North Bihar districts and is doubtless responsible for a large number of deaths every year, although figures are not available. Government give special grants of Rs. 7,500 every year for the purchase of special drugs for the treatment of this disease and this year the grant was increased to Rs. 10,000. These drugs are distributed to the hospitals where the disease is prevalent.

Tuberculosis.

18,721 persons were treated for tuberculosis in hospitals and dispensaries as compared with 17,812 in 1932. It is probable that the ravages of this disease will continue to increase rather than diminish until the general mass of the people have been educated to a far higher standard of sanitation and hygiene. Although it is true that the humid atmosphere of India at certain times of the year is very favourable to the growth of the tubercular bacilli the principal causes of the spread of the disease are overcrowding, insufficient ventilation and defective diet. The disease is especially prevalent among *pardanashin* women for reasons which are obvious. In combating the disease educational propaganda and an improved standard of living are at least as important as purely medical measures.

Leprosy.

Three more leprosy clinics were opened making a total of fifteen in all. Altogether 9,772 patients were treated in these clinics, a slightly higher figure than in 1932. As in previous years there were six leper asylums and two leper colonies with indoor accommodation for 2,079 patients. In all 2,273 indoor patients and 1,733 out-patients were treated in these asylums and colonies as compared with 1,999 and 2,504 respectively in the previous year. Leprosy is one of the diseases in which there is still a vast field for research both as to its cause and cure. The principal body engaged in this field is the Indian Council of the British Empire Leprosy Relief Association.

Health propaganda.

Some indication has already been given of the extent to which ignorance, prejudice and insanitary living assist the growth of diseases even when the cause is known and a specific remedy exists. In India the work of the propaganda officers is as important as that of the medical expert. During the year the Public Health Bureau did some useful work in the production of pamphlets and posters for distribution to local bodies and of popular health articles for the press. The Assistant Directors of Public Health are expected to give short lectures on sanitation and hygiene during their tours in rural areas and they are provided with a magic lantern and slides on all important topics of health. Actually no fewer than 381

such discourses were given during the year. The Red Cross Society has also done useful work in this matter and their Health Museum in Patna attracted about 130,000 persons during 1933. For the greater part of the year a number of the staff of the Director of Public Health attended the Museum and explained the exhibits. In all countries the medical inspection of children and their education in health matters are now recognised to be of primary importance. A special staff of officers have been maintained for this purpose since 1920 and they visit all the high English schools and many middle English schools in the province. The enormous importance of this work is indicated in the fact that in 1933 over 50 per cent of the boys examined and nearly 70 per cent of the girls were found to be suffering from some ailment or other requiring treatment. Children in the higher classes at the high English schools have also to attend lectures by the school medical officers on hygiene, sanitation and epidemic diseases. Unfortunately under present conditions students are inclined to pay greater attention to subjects which will assist them to pass their examinations.

As has already been stated, twelve district boards have fully organised health schemes in the charge of qualified health officers. For the effective control of recurrent epidemics a health organisation scheme is a necessity in every district. It is to be regretted that, in spite of the generous financial assistance offered by Government to certain district boards where the need is specially great, those boards have not yet agreed to adopt suitable schemes. The position in the municipalities is even more discouraging for only five of the fifty-eight municipalities have full-time health officers. Two other municipalities, however, those of Cuttack and Ranchi, have recently agreed to engage whole-time health officers. The Jharia Mines Board of Health which control the sanitation of Jharia and the neighbouring mining areas continued to make useful progress in improving the sanitation of the areas. During the year only 131 deaths occurred from cholera, smallpox and influenza among the colliery population of about 128,241. 173 collieries have now been connected to the Water Board mains and only ten small collieries remain unconnected. The scheme for the construction of major drains in Jharia is now nearing completion. Work in connection with the Maternity and Child Welfare scheme was continued as usual and the Board maintained the services of two lady health visitors and five midwives.

There was an increase in the number of articles examined at the Public Health Laboratory. Roughly half the samples of ghee, mustard oil and sweets examined were found adulterated and below

standard. Three out of eight samples of milk were found to contain added water. Four samples of soda-water were all found to contain B. Coli.

Water-supply schemes.

The principal functions of the Engineering Branch of the Public Health Department are to prepare and execute water-supply, drainage, and sewerage schemes for Government and the local bodies, to maintain the water-supply and sanitary installations in all Government institutions throughout the province, and to supervise existing municipal water-supply and drainage system. As an experimental measure with a view to economy the Department has been amalgamated with the Public Works Department for two years, and is now known as the Public Health Circle of the Public Works Department.

During the year the principal water-supply schemes under construction were at Bhagalpur, Muzaffarpur, Patna and Puri. At Bhagalpur a scheme for the improvement of the municipal water-works at an estimated cost of over five lakhs has been sanctioned and work has been commenced. Four motor-driven pumping sets for the supply of filtered water to the towns have been installed and work commenced on the rearrangement of the distribution system and on the construction of an elevated service reservoir at Tarbana. At Muzaffarpur work is progressing satisfactorily, except in the Chandwara area where work is held up because of the extensive destruction of buildings during the earthquake. At Patna, the construction of four nine-inch diameter tube-wells at Khajekalan commenced at the beginning of the year, is nearing completion and work has been started on two additional nine-inch tube-wells at the University head-works. At Puri the head-works consisting of six tube-wells with the necessary pumping plant, etc., have been completed but there has been delay over the construction of the service reservoir owing to opposition to the acquisition of the site originally selected. It is hoped that the scheme for this great pilgrim centre will be completed by the monsoon of 1936.

In connection with the earthquake the Department sank 1,227 Abyssinian tube-wells, of which 903 proved successful. The Department also arranged for the construction of 40 sets of service latrines each with six seats for use in emergency camps.

Medical Department.

There is close co-operation between the Medical Department and the Public Health Department, but their functions are essentially different. The principal function of the Medical Department is curative as distinguished from preventive medicine and the personnel and equipment of the

Department are largely devoted to the cure of the individual patient. In addition to a large number of hospitals and dispensaries the medical institutions of the province include the European and Indian Mental hospitals in Ranchi, the Itki Sanatorium for tuberculosis, the Radium Institute and the Pasteur Institute at Patna, the Medical College at Patna and Medical Schools at Darbhanga and Cuttack.

During the year under review the total number of hospitals and dispensaries of all kinds was 686. Of these 28 are special hospitals belonging to the police and other departments of Government, 66 are private institutions receiving no financial aid from Government, 56 belong to the Railways, and 8 are subsidised dispensaries which have not in previous year been counted in the statistical review. The balance numbering 528 are almost entirely a charge upon the public funds whether local or of Government. The Indian public has unfortunately grown accustomed to the idea that the maintenance of hospitals and medical relief is one of the duties of Government, and there is consequently little enthusiasm to contribute to their assistance. Although nearly all the 528 state, local fund and aided institutions have opened subscription books the income received from this source is negligible. During the year the contribution by Government for the maintenance of these hospitals and dispensaries amounted to over Rs. 8½ lakhs, that by local and municipal funds to approximately Rs. 15½ lakhs while that from subscriptions was only about Rs. 1½ lakhs. The only charitable institutions in the province are the private dispensaries maintained by a few large estates and public-spirited private individuals.

The hospitals at the district headquarters are in charge of Civil Surgeons, and as far as possible those at subdivisional headquarters are in charge of Assistant Surgeons of the Provincial Medical Service. The balance are in charge of doctors of the licentiate class who have qualified from the Medical Schools in the province and Bengal. The number of indoor patients at hospitals and dispensaries maintained or aided by Government or local funds was 70,909, an increase of over 4,000 compared with the previous year, but the number of outdoor patients fell from 5,914,809 to 5,718,422. The total number of patients treated in all classes of hospitals and dispensaries fell from 7,250,123 to 7,089,290.

Medical aid for women.

There are special hospitals for women at the Patna Medical College Hospital and at the Ranchi Sadr Hospital and also at Gaya, Bettiah, Bhagalpur, Barh, Bihar and Chakradharpur. In addition there

are mission hospitals at Hazaribagh and Patna (Gulzarbagh) with British qualified doctors in charge. Elsewhere the district hospitals have separate wards for women and nearly all have lady doctors attached to the staff. Eventually it is hoped to have a lady doctor at every subdivisional hospital, and some progress have been made towards the realisation of this aim. Unfortunately in rural areas, the great majority of villagers are still out of reach of skilled attention for their women. Their reluctance to allow their women to attend the general hospitals is shown by the fact that the number of women patients attending all hospitals is less than half the number of male patients. The Bihar and Orissa Maternity and Child Welfare Societies and the Bihar and Orissa Council of Women continue to do useful propaganda work in impressing the villagers with the importance of seeking proper medical aid at the time of child-birth.

Medical education.

The Prince of Wales Medical College completed the eighth year of its existence. There were 275 students on the rolls, new entrants being restricted as usual to forty in spite of the large number of entrants. Forty-four students took their final examination and seventeen were successful. As usual students were sent to the sanatorium at Kanke and Itki for special training. At the Darbhanga Medical School there were 230 students and at the Cuttack Medical School there were 188 male and 13 female students.

Mental Hospitals.

The European Mental Hospital and the Indian Mental Hospital at Ranchi continued to afford treatment and relief to a large number of mental defectives. The Indian Hospital contains accommodation for 1,014 males and 272 females. Occupational therapy has long been recognised as the treatment affording the greatest promise of success in the treatment of mental defectives. The variety of occupations provided is now so large that even for the most turbulent and intractable patient some congenial form of occupation can almost always be found. The vegetable garden at the hospital provides daily work for about 200 patients, and produces all the vegetables required for the institution during the year. The value of the produce is nearly Rs. 25,000.

Itki Sanatorium.

The Itki Sanatorium is intended for the treatment of cases of tuberculosis in its early stages. Only patients who are residents of the province are admitted. The capacity of the Sanatorium which is limited to 50 beds is not sufficient to cope with the present-day demand for accommodation resulting from the increasing popularity of the

institution. During the year 169 patients applied for accommodation but only 65 were admitted. It is hoped to have new wards ready for accommodation during 1934.

The Radium Institute.

The Radium Institute at Patna has now completed 12 years of its existence. The number of patients increases year by year and in 1933 838 new patients were treated as compared with 721 in the previous year. Small amounts of radium are available for the treatment of cases in various parts of the country; as a result an increasing number of cases which come to the Patna Institute from other parts of India are at a very advanced stage of the disease when little benefit can be expected.

The Pasteur Institute.

The Pasteur Institute at Patna and the anti-rabic centre at Cuttack continued to work satisfactorily. Treatment was given to 4,921 persons at the Institute and 386 patients at the Cuttack centre as compared with 4,112 and 366 in the previous year. More than half the patients were indigent.

CHAPTER VIII.

Maintenance of peace, administration of justice and jails.

The Police.

The police force has emerged from the political troubles of the last few years strengthened rather than weakened by constant attacks. During the year under report civil disobedience was practically moribund and the lull in political activity was even more marked in Bihar and Orissa than in the rest of India. Relieved of the strain of civil disobedience which had proved so severe during the preceding three years, the police were able to devote more time to their legitimate duties—the prevention and detection of ordinary crime. It will be seen later in this chapter that their success has been remarkable, particularly when it is considered that economic conditions were again adverse.

The efficiency of the force was tested to the full by the earthquake of January 15, 1934. For a few days there was the greatest danger of looting and disorder in the stricken towns; the menace came to nothing, largely owing to the rapidity and efficiency with which large bodies of police were transferred from less affected areas. Within three days of the earthquake 250 men had been moved to Monghyr from Bhagalpur, Barhi and the Constables' Training School at Nathnagar. Three troops of Mounted Military Police left Arrah on the evening of the 16th January and moving across country reached Muzaffarpur on the 18th. The Gurkha Military Police were moved from Ranchi on the 16th to Darbhanga and Motihari. A party of the Hazaribagh armed police were sent to Bettiah and others were used on the lines of communications. The Police Department also performed very useful services in connection with matters, not normally falling within the scope of their duties. The emergency system of transport between Patna and Muzaffarpur, subsequently extended to Motihari and Darbhanga, was entirely organised and staffed by police officers, the Deputy Inspector-General of Police, Central Range, being in charge. In the damaged towns, the police were in the forefront in rescuing injured people from the ruins, in rendering first aid, and conveying the badly injured to hospitals; arrangements had to be made for the disposal of dead bodies, for the payment of municipal sweepers and the recruitment of labour, and not infrequently these duties fell on the police.

The strain thrown upon the force by emergencies of this nature will be appreciated when it is remembered that the sanctioned strength of the police force is barely adequate for their normal duties. The regular force consists of 14,440 officers and men, of whom 11,445 are constables; in addition there are two units of military police and one squadron of mounted military police numbering in all 479 officers and men. With this scanty force, approximately one policeman to every 2,600 persons in the province, the Police Department has even in normal times to perform a number of miscellaneous duties in addition to the maintenance of law and order; in recent years, for example, the control and taxation of motor vehicles has added enormously to the work of the Department.

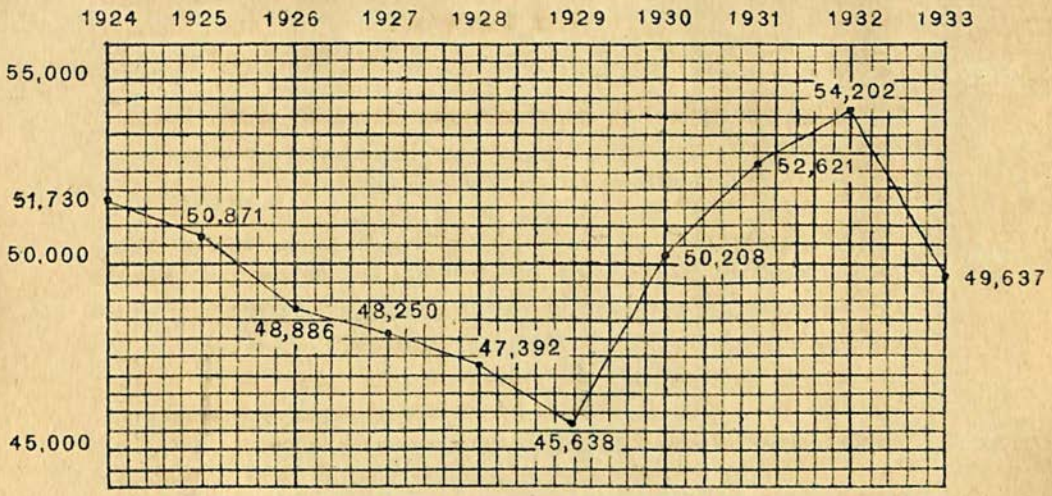
The total cost of the police for the year 1933-34 was approximately Rs. 83 lakhs. Financial stringency continues to hamper the Department. Major projects amounting to Rs. 7,45,740 are still held up for lack of money and it has not been possible to establish new police-stations and outposts which are badly wanted. Industrial development inevitably increases the cost of the police. During the year new sugar factories were opened at Bihta in Patna, Dehri in Shahabad and Semapore in Purnea, and new police posts will have to be established at these places.

Seven forces of additional police were imposed on various districts of North Bihar during 1932 in each case owing to disturbance arising from civil disobedience. Six of these forces were withdrawn during 1933 and no additional forces were imposed.

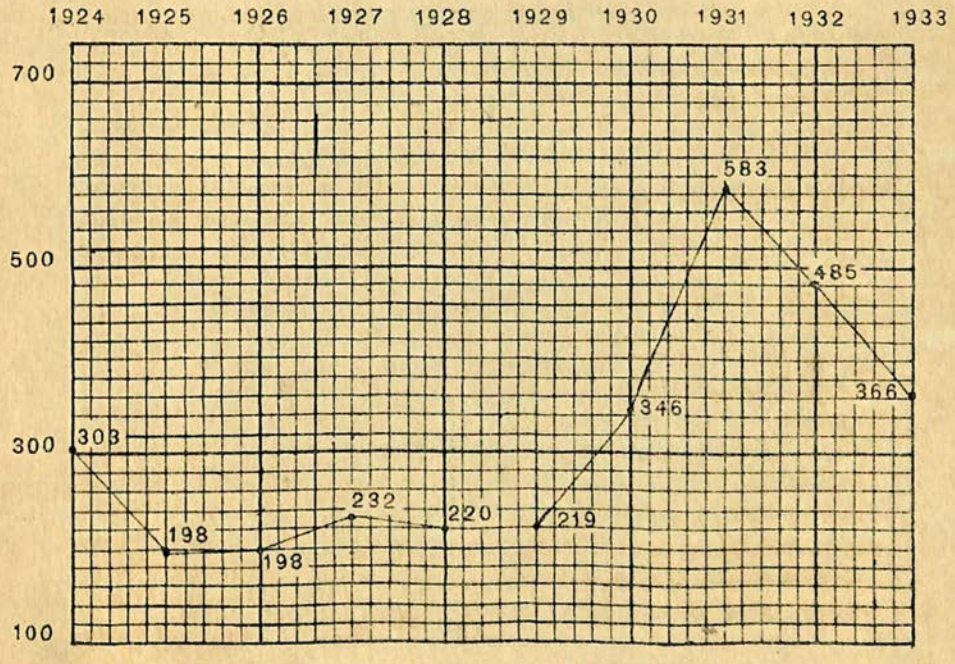
Revolutionary conspiracy.

Although no major outrage took place during the year, there were abundant signs of revolutionary activity. A widespread conspiracy was detected in Calcutta in January 1933 and as a result 17 persons were arrested and charged with conspiracy in Gaya. 16 were convicted and sentenced to imprisonment for terms varying from one to seven years. In Tirhut the police were greatly assisted in the fight against terrorism by the declaration of Jogendra Sukul's gang as a criminal tribe. Baikunth Sukul (a cousin of Jogendra), who was wanted for murder at Bettiah of an approver in the Lahore Conspiracy case, was arrested at Sonepur while carrying a bomb and a dagger. He was sentenced to death in March 1934. Attempts were made to intimidate witnesses in terrorist cases and during the year there were two abortive attempts to murder police officers who had been concerned in the detection of revolutionary crime. In May a youth was killed at Patna by the explosion of a bomb

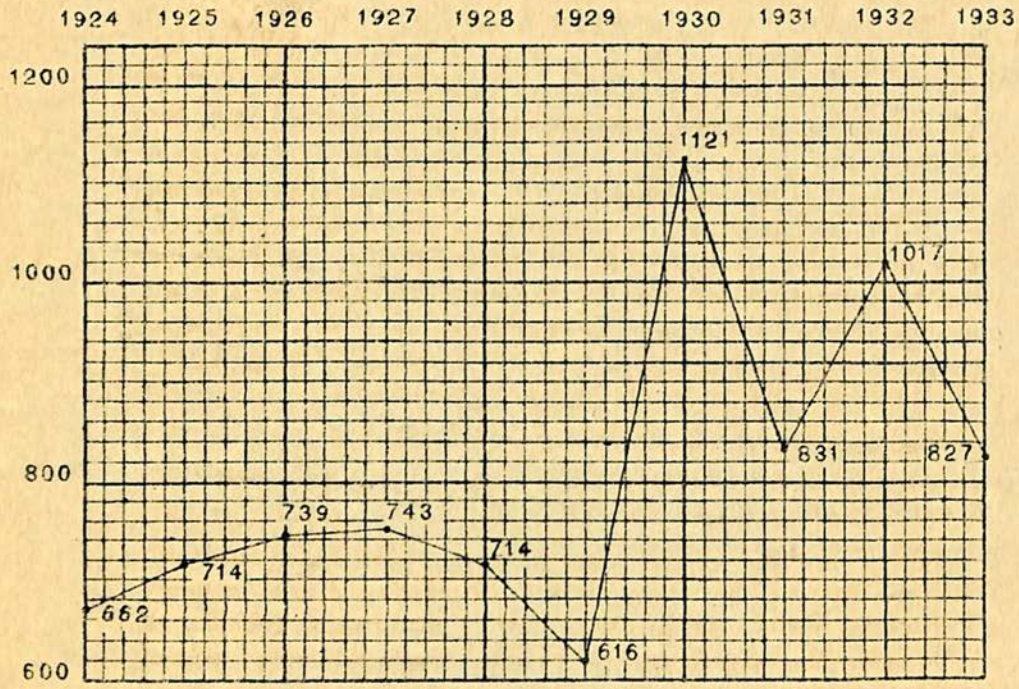
TRUE COGNIZABLE CRIME.



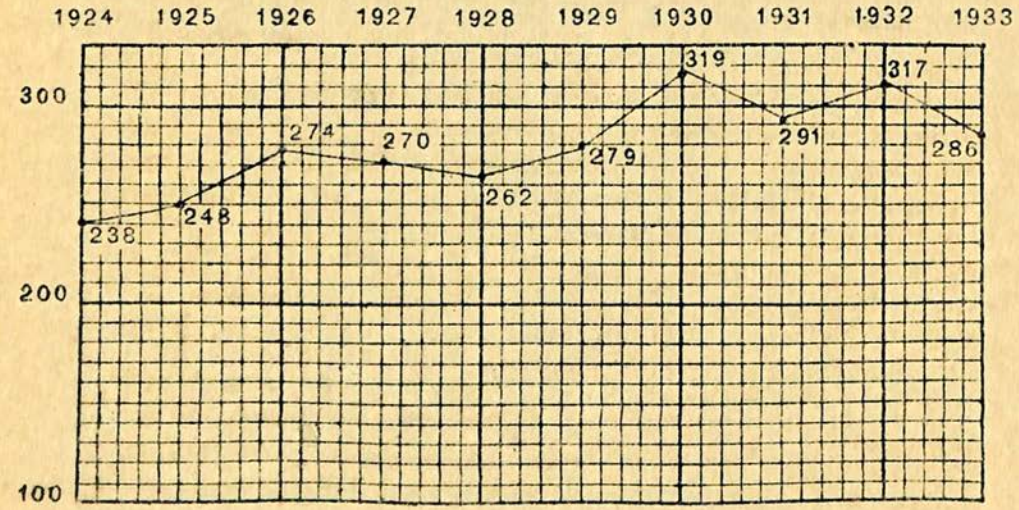
TRUE DACOITY



TRUE RIOTS



TRUE MURDER



which he was carrying. In August another youth was arrested while carrying two bombs. In the same month a bomb exploded in a room in Ranchi and it is believed that the occupant, a suspect from Eastern Bengal, intended to throw it at His Excellency the Governor. He was sentenced to seven years' rigorous imprisonment.

Discipline.

The force maintained its high standard of discipline. Punishments, both departmental and judicial, were fewer than usual. Rs. 26,547 was spent in rewards to 6,065 officers and men. Six officers were admitted to the Order of the British Empire, three officers and one constable received the King's Police Medal, four officers received the Indian Police Medal and one officer received the Medal of the Civil Division of the Order of the British Empire.

The majority of constables can now read and write in the vernacular. Of 409 men recruited during the year only four were illiterate.

The work of the village police was, on the whole, satisfactory. Numerous instances have been reported of good work in apprehending criminals and special mention must be made of a chaukidar in Darbhanga who was killed while tackling single-handed a gang of dangerous dacoits.

Crime.

There was a decrease in all classes of cognizable crime and a glance at the diagrams on the following pages will show how marked was the improvement in the figures for dacoity, rioting and murder. True cognizable crime fell from 54,202 in 1932 to 49,637. Riots and unlawful assemblies fell from 1,017 in 1932 to 827, the lowest figure since 1929. 366 true cases of dacoity were reported against 485 in 1932 and a triennial average of 471. To a large extent the police have recovered from the set-back caused by civil disobedience and the open defiance of authority which has assisted the habitual criminal so much in past years. Economic causes and unemployment are responsible for keeping burglaries and thefts at a high level, although here also there is a slight improvement.

The fall in the number of dacoity cases is largely to be attributed to the work of the special anti-dacoity forces of armed police. To deal with the wave of crime which accompanied civil disobedience, Government were forced in 1930 to raise temporary armed police forces amounting in all to 400 men and it has been found necessary to maintain them ever since. Since 1932 half or

more than half of these forces have been engaged in combating dacoity. The following figures will illustrate the effect of their employment. In the Rupauli, Dhamdaha and Forbesganj police-stations of the district of Purnea there were 30 dacoities in 1931. The special force was posted to Purnea in 1931 and the number of dacoities in these three police-stations was only nine in each of the two succeeding years. In the Manihari police-station the figure for 1931 was eight. The deputation of a detachment to work in that area in 1932 brought the number of cases down to three in 1932 and nil in 1933. The forces have been equally successful in other areas, and dacoity has been largely suppressed in the districts of Purnea, Bhagalpur and Saran. Unfortunately, as soon as the menace is brought under control in one area it breaks out in another, and dacoity is now becoming a serious problem in the districts of Shahabad, Patna, Gaya and Champaran.

There were 286 murders against 317 in 1932. 281 persons were sent up for trial in 128 cases. 70 cases ended in conviction. Witchcraft was the alleged cause of 18 murders and 34 were for gain. In Saran a chaukidar who had confessed to the murder of a sub-inspector with some others committed suicide in jail. In two cases in Sambalpur district the victims at the instance of "Baids" permitted themselves to be bitten by cobras in order to test the efficacy of an antidote.

False cases.

There was a slight increase in the number of cases declared maliciously false and also in the number of prosecutions ordered. The percentage of convictions to prosecutions was generally very low and the poorest results were at Patna and Monghyr where the percentage of convictions to prosecutions amounted to only 6.0 and 3.7 respectively.

Picketing.

The picketing system again proved very successful. 589 persons were arrested by picketing parties and of these 449 had been convicted and 24 were under trial at the close of the year. Constables are frequently deputed to study the appearance of bad characters and 32 arrests are attributed to this practice.

Criminal Investigation Department.

The Intelligence Bureau have now 4,510 history sheets of professional criminals. Out of 1,031 persons arrested and traced as old offenders by the Finger Print Bureau, the history sheets of 85 and case histories of 17 were on record in the Intelligence Bureau.

107 questioned documents were received for examination against 110 in the previous year. Experts from the Finger Print Bureau gave evidence in 426 cases, of which 385 were private and furnished opinions in 1,288 cases of which 1,242 were private. The Bureau took approximately Rs. 28,004 in fees and is now more than self-supporting.

Criminal justice.

For sessions work the staff consisted of twelve District and Sessions Judges and three peripatetic Additional District and Sessions Judges. The latter were attached for varying periods to the districts of Patna, Gaya, Bhagalpur, Darbhanga and Saran. Temporary Additional District and Sessions Judges were also employed during the year in Patna, Gaya and Muzaffarpur. The magisterial staff at the close of the year consisted of 364 Stipendiary and 141 Honorary Magistrates.

The number of offences reported during the year was 101,075, of which 59,923 were offences under the Indian Penal Code and the remainder under special and local laws. Compared with 1932 there was an increase in seven districts and a decrease in thirteen.

The number of cases disposed of by Magistrates were 71,082. The disposals were distributed as follows :—

District Magistrates	52
Subordinate Stipendiary Magistrates ...	61,481
Honorary Magistrates	8,242
Benches of Magistrates	1,184
Special Magistrates	123

The total number of cases tried by Magistrates in the exercise of special powers under section 30, Criminal Procedure Code, was 242 as against 201 in 1932 and 142 in 1931. The more extended use of these special powers is very satisfactory as it is of great assistance to Sessions Judges and Assistant Sessions Judges in non-regulation districts.

The percentage of convictions in the case of persons actually tried was 66.7 as compared with 70.5 in 1932. Out of 62,657 persons acquitted or discharged the cases of more than half were compounded, withdrawn or dismissed for default. Sentences of rigorous imprisonment were passed on 16,687 persons and of simple imprisonment on 626 persons. 214 persons were punished with whipping. Fines amounting to about Rs. 7 lakhs were imposed but only just over Rs. 4 lakhs were realised. Eleven youthful offenders

were sentenced to detention in the Reformatory School as against seven in 1932.

The number of witnesses examined in the courts of Magistrates was 204,663 as compared with 208,230 in 1932. The number discharged without examination was 65,110 or 24.1 per cent of the whole number in attendance. 65.3 per cent of those in attendance were discharged on the first day and 28.2 per cent on the second day. The High Court are again of opinion that the number of witnesses detained after the second day could be reduced if more attention were given to methodical arrangement of cases.

Courts of session.

The number of cases tried in the courts of session was 796, a decrease of 60 from the abnormally high figures of 1932. The cases of 2,812 persons were decided and of these 1,589 or 47.7 per cent were convicted. 67 persons were sentenced to death; 125 to transportation; and 1,291 to rigorous imprisonment. The corresponding figures for 1932 were 75, 156 and 1,284.

There was no change in the system of trial by jury which continued to be in force in ten districts for certain offences. In five districts the system is reported to have worked fairly satisfactorily. In three districts it has been severely criticized. The general complaint is that jurors are of insufficient education, are unable to appreciate evidence properly and are lacking in sense of responsibility. In one district it is said that most of the jurors have so strong a prejudice against the infliction of the death penalty that they will under no circumstances bring in a verdict of guilty on charges of murder. During 1933 748 persons were tried by jury and the verdict of the jury was accepted in the case of 691 persons. In respect of 57 persons references were made to the High Court under section 307 of the Code of Criminal Procedure. The number of persons tried with the aid of assessors was 1,884. In the cases of 968 persons the Sessions Judge agreed with the opinion of the assessors.

Appeals.

3,332 appeals were decided by the courts of sessions in 1933. Thirty-one per cent of the appellants were acquitted, eighteen per cent were partially successful and forty-eight per cent were wholly unsuccessful. In the other cases new trials or further enquiries were ordered. The number of appeals decided in Magistrates' courts was 2,462. Of the appellants approximately 28 per cent were acquitted and 14 per cent were partially successful. Out of 69 persons whose cases were referred to the High Court for confirmation of the death sentence, the sentence on 41 persons was confirmed.

Panchayat courts.

There were 118 panchayat courts in the province during the year and of these no fewer than 94 were in the district of Muzaffarpur. Their work was, on the whole, satisfactory, but friction among the members militate against their efficiency and they require constant and adequate supervision. Their work lies mainly in settling petty disputes and it is doubtful whether they have any effect on the volume of work which comes before the ordinary courts.

Civil justice.

The number of civil suits instituted was 218,785, a higher figure than in any previous year. The increase was entirely due to a marked increase in the number of rent suits under the Bengal Tenancy Act, particularly in the districts of Darbhanga, Muzaffarpur, Purnea and Saran. The increase is accounted for by the prevailing economic depression and the general fall in the price of grain. Nearly 70 per cent of the rent suits were for sums not exceeding fifty rupees.

The total number of suits for disposal was 347,037. Of these 218,785 were instituted during the year, 103,946 were pending from the previous year and 24,306 were revived or otherwise received. 211,142 were disposed of. At the close of the year there were 112,763 suits pending, an increase over the previous year of 8.5 per cent. The average disposal of suits in the courts of Subordinate Judges rose from 328.7 to 355.1, but there was a slight fall in the average disposal in the courts of Munsifs. There was a welcome fall by 26 per cent in the number of suits pending for over one year from the date of institution. The number of such cases pending at the close of the year was 1,505, of which nearly seventy per cent were in the courts of Munsifs.

Appeals and miscellaneous cases preferred before the High Court numbered 3,311. 4,769 cases were pending from the previous year. 4,026 cases were decided, so that by the close of the year the number of cases pending had decreased by over 700. The large increase in the number of cases decided was due to an innovation in the arrangements made for the disposal of work. Throughout the year second appeals exceeding Rs. 200 in value but not exceeding Rs. 1,000 were invariably placed before a single judge instead of before a bench, as had been the previous practice.

In the appellate courts subordinate to the High Court, 5,646 appeals were instituted, a decrease of ten per cent from the figures of 1932. Appeals were preferred in 26.6 per cent of appealable cases, the lowest percentage since 1916. The number of appeals decided numbered 7,131 and at the close of the year the number

of appeals pending for more than one year had been reduced from 886 to 529 and the total number of appeals pending from 5,858 to 4,571.

A less satisfactory feature is the fact that only 50 per cent of the appeals were decided by the District and Additional District Judges, while the balance were decided by Subordinate Judges. The great bulk of the appeals ought to be decided by the District Judges and the High Court express serious alarm at the present unsatisfactory position. Inevitably the Subordinate Judges are left with too little time to devote to the trial of suits and the District Judges obtain but an imperfect knowledge of the work of the Munsifs subordinate to them. While a contributory cause is the insufficiency of the cadre of District Judges to cope with the work, there is little doubt that some of the District Judges might have decided more appeals than they did. In 53 per cent of the appeals the judgment of the lower court was affirmed. There was interference in appeal in approximately one case in three.

The experimental appointments of Registrars for the civil courts at Patna and at Gaya continued throughout the year. Both the District Judges are of opinion that the system should now be placed on a permanent footing. The Registrars have proved very effective in reducing corruption among the ministerial and process-serving establishment and in supervising the miscellaneous administrative work of the civil courts.

Jails.

Civil disobedience and the outbreak of ordinary crime which accompanied it, had raised the jail population for 1932 to the highest figure since the formation of the province. During the year 1933 the decline in the flow of civil disobedience prisoners brought about a reduction, the daily average number of prisoners of all classes falling from 14378.78 to 13562.14. This drop was not sufficient to have any appreciable effect on the extreme congestion in the jails; in 1931 the daily average number of prisoners was only 11319.32; in the circumstances the reduced jails at Arrah, Chaibassa, Daltonganj and Balasore, which had been temporarily raised to the status of district jails, continued to function as such throughout the year, and it was not possible to disband the camp jail before the close of the year. To relieve congestion, orders were issued towards the end of March 1933 empowering the District Officers to release unimportant civil disobedience prisoners who were not likely to resume their activities and had completed three-fourths of their sentences and empowering the Superintendent of the Camp Jail, Patna, to release juvenile, aged and infirm prisoners who had been

convicted of minor offence for the first time. 990 such prisoners were released.

During the earthquake, the Central Jail at Bhagalpur, the juvenile jail at Monghyr, the district jails at Motihari, Muzaffarpur, Darbhanga, Purnea and the sub-jails at Barh, Dinapore. Sitamarhi, Bettiah and Madhubani were so badly damaged as to be unfit for the custody of prisoners. Temporary sheds were constructed, and the situation was also relieved by the release of 1,580 prisoners convicted of the less heinous forms of crime, who had served a substantial portion of their sentences.

There was a decrease in the percentage of Hindu convicts from 86.36 to 81.75 and a rise in the percentage of Muhammadans from 6.85 to 11.16. This change reflects a decline in the number of civil disobedience prisoners who were largely Hindus. The percentage of youthful offenders and adolescents up to the age of 21 fell from 22.8 to 16.08, a further sign of the decrease in the political agitation.

The daily average population of the juvenile jail was 223 against 194 in the previous year. Experience shows that no improvement in the character of a juvenile prisoner is possible unless he is detained sufficiently long to benefit by systematic training. Boys sentenced to one year and above undergo Borstal treatment and are given educational, industrial, physical and vocational training, but shorter sentences do not give any scope for such reformative treatment. It is, therefore, satisfactory to record that the percentage of juveniles sentenced to one year and under fell to 72.48—lower than in any of the preceding five years—while there was a corresponding increase in the percentage of boys given sentences above that period. Four boys were helped after release from the balance of the fund of the Defunct Juvenile Prisoners Aid Society.

Education.

Compulsory education of certain classes of prisoners was continued on the usual lines with very satisfactory results.

Instruction is given at the Gaya and Bhagalpur central jails; at the former to ordinary prisoners sentenced to one year or over, whose mother tongue is Hindi; at the latter to all Urdu-speaking 'A' class male prisoners of 25 years and under.

Discipline.

Overcrowding in the jails and the turbulence of civil disobedience prisoners made any improvement in discipline impossible. The total number of offences committed by convicts rose from 5,399 to 5,626, but it is satisfactory that the number of cases in which corporal punishment

was found to be necessary declined from 21 to 15. Flogging is the only deterrent punishment in cases of assault, refusal to obey orders, the shouting of seditious slogans, abuse of the jail staff and indecent conduct.

Jail manufactures.

There was an alarming slump in the profits of the Buxar and Bhagalpur central jails. The net profits at the former fell from Rs. 72,830 to Rs. 37,878 and at the latter from Rs. 69,460 to Rs. 41,523. The main customers of the jails are, of course, the various Government departments and the curtailment of their expenditure owing to financial stringency has inevitably affected the profits of the jails. This, no doubt, accounts for the decline in the number of tents ordered. In addition private competition is seriously affecting the tailoring department of the Buxar Jail. In the past orders from the Police Department and chaukidari officers have been the mainstay of this Department, but during the year 1933 the Police Department placed orders only for an insignificant portion of their requirements and some of the chaukidari officers placed their orders with private firms. Private firms are prepared to cut their profits to almost nothing to obtain orders and inevitably clothes produced by convict labour cannot have the same finish as those produced by expert tailors.

A brighter picture is presented by the two new industries started at the Buxar Jail in 1932, viz. the manufacture of gunny bags from hessian purchased from outside and the making of cotton carpets. The total number of gunny bags made and supplied rose from 8,572 to 17,881 and the total number of durries rose from 101 to 140.

In spite of overcrowding the general health of the prisoners during the year was satisfactory. The daily average number of sick prisoners fell from 439 in 1932 to 319 in the year under report. The death-rate per mille was 14.4 as compared with 12.5 in 1932 and 18.6 in 1931.

CHAPTER IX.

Excise.

General.

The promotion of temperance is one of the most difficult problems confronting the social reformer. In the past temperance propaganda has not infrequently taken the form of an attempt to deprive the poor man of his drink while leaving the well-to-do to follow their own inclinations, regardless of the fact that as a general rule the manual labourer is likely to suffer less harm and obtain more benefit from the moderate consumption of alcohol than his less active superiors. In general, state interference in the cause of temperance reform is doomed to failure if it represents an attempt to improve a body of people, when they have no real desire to be improved or belief in the value of the improvement. The most obvious example of the truth of this statement is of course the attempt to enforce prohibition throughout the United States of America. So far from promoting the cause of temperance, this experiment ushered in a wave of crime and immoderate drinking. The administration even of this highly organised state was half paralysed by gangsters and racketeers, who were able to build up an invincible organisation upon the profits of the illicit liquor trade. The fact is that the average body of human beings will not be dragooned into altering their habits in matters in which they have their own views as to what is morally right or wrong. What can be done is to educate people to understand the harm which they suffer from immoderate indulgence in alcohol. There will, of course, always be many people to whom the taking of any form of alcohol is repugnant and even a deadly sin. They are entitled to their opinion, but they are not entitled to force it upon other people, whose moral views are different.

In India state interference in the cause of temperance has largely taken the form of taxing liquor sufficiently highly to ensure a gradual reduction in consumption. This policy is open to the obvious criticism that it penalises the poorer classes and not the richer classes. It was not, however, generally recognised that it had failed in its principal objective, the promotion of temperance, until with the advent of the slump illicit distillation and the consumption of illicit liquor became so widespread that it could not be ignored. The purchasing power of the consumer had fallen to such an extent that he could in many cases no longer afford to buy

from the licensed shops. The official vendor had under the sliding scale system no incentive to check illicit distillation and was not infrequently in league with the illicit distiller. It was evident that the existing system was leading to widespread demoralisation. Illicit distillation was a menace equally to the cause of temperance, and the revenues of the province, and alarm at the serious fall in revenue could not be tempered by the reflection that the consumption of liquor was on the decline. An excise policy which practically compels would-be consumers to break the law has other even more serious consequences than the fact that it diverts money which should be spent on the nation-building departments of Government to the pocket of smuggler and illicit distiller. Excessive taxation of liquor was driving law-abiding people to become excise criminals and jail birds. The number of convictions for breaches of the excise laws rose rapidly. The number of persons sentenced to imprisonment rose from 3,210 in 1929-30 to 5,649 in 1931-32. The number of persons convicted in illicit distillation cases rose from 1,314 in 1929-30 to 3,497 in 1931-32. These offences are notoriously difficult to detect and the number of convictions represents but a minute percentage of the number of offences committed.

It was in 1932 that a determined attempt was made to combat the evil by the introduction of a number of changes in the excise administration, principally the abandonment of the sliding scale system of settlement for the auction system, an all-round reduction in prices to meet the reduced purchasing power of consumers, and the re-introduction of outstills in hilly, jungly and inaccessible parts of the province because of the impossibility of detecting illicit distillation. The striking effect of the changes upon excise crime is indicated by the table below:—

	Number of persons convicted for illicit distillation.	Number of persons convicted under the excise and opium laws.
1930-31	2,859	4,186
1931-32	3,497	5,649
1932-33	2,886	5,692
1933-34	1,843	4,103

The principal criticism of the new system has been that it has led to an increase in drunkenness. The criticism is largely the outcome of the fact that people who used to drink illicit liquor naturally did it in secret, while now that it is possible to obtain legal liquor at prices within their means they drink openly. The psychological effect of open drinking is likely to be much less harmful

than secret drinking, and the man who drinks in a companionable circle is far less likely to drink to excess than one who takes his secret potations with the fear of apprehension hanging over his head. It will be some years before the full effects of the new policy are manifest, but it can be said with confidence that the results so far are to the good.

Developments during the year.

During the year under report a number of distillery liquor shops were converted into outstill shops in the districts of Gaya, the Santal Parganas, Sambalpur, Hazaribagh, Ranchi and Manbhum. Outstills were restored in the colliery areas of Hazaribagh and Manbhum because of the enormous dimensions to which illicit distillation on a well-organised basis had expanded. There was a further all-round reduction in the retail prices of country spirit, *ganja* and opium. Excise shops were settled throughout the province by auction except the distillery liquor shops in the Jamshedpur area of the district of Singhbhum and the drug shops in the district of Angul.

Reorganisation scheme.

A reorganisation scheme was introduced in the Excise Department, designed to make the machinery for inspection and suppression of malpractices run more smoothly. The scheme involved the creation of one additional post of Deputy Commissioner, nine posts of Deputy Superintendents (of whom five were to be in charge of districts and four to work under Superintendents) and twelve posts of Inspectors. Against these additional posts, five posts in the cadre of Excise Superintendent and thirteen in the cadre of sub-inspectors were kept vacant. The scheme is a temporary experimental measure and has been sanctioned for two years with effect from the 1st October 1933.

Revenue.

The total gross revenue from excise during the year amounted to Rs. 1,24 lakhs as against Rs. 1,22 in the previous year. The actual increase in net revenue amounted to Rs. 3½ lakhs. In the pre-slump period the excise revenue had reached what appeared to be a stable level between Rs. 190 lakhs and Rs. 200 lakhs. The decline was averted in the year 1932-33 but this is the first time in four years that the revenue has actually risen. This feature is particularly satisfactory because the year, as a whole, was not a favourable one. For the greater part of the year there was not the slightest sign of a break in the clouds of economic depression. The amount of money in circulation and the purchasing power of the population steadily declined. There was a continuous decrease in the rates of wages of labourers and progressive contraction in the amount of work available both in the towns and villages. In the previous

year the winter rice crop had suffered from unfavourable rainfall and other crops were only fair to moderate. Excise history shows that indifferent crops in one year inevitably affect the excise revenue for the next year unfavourably. To some extent these unfavourable factors during the first nine months of the year were offset by an unexpected improvement in January 1934 in the purchasing power of certain classes of consumers of excisable articles. In Bihar the earthquake was followed by an immediate demand for labour, work was abundant and wages rose considerably. In Chota Nagpur a sudden rise in the price of lac led to a considerable increase in the licence fees obtained for outstills. Nevertheless surveying the year as a whole the results were surprisingly good, and must represent a considerable diversion of profits from illicit distillers to the state. A comparison with the position in Bengal illustrates the good fortune of this province in not having suffered a much greater loss. There has always been a definite relation between the excise revenue of the two provinces and in pre-slump years when the revenue went up in one province it went up in the other and *vice versa*. Between the years 1925 and 1930, the revenue in Bihar and Orissa appeared to have reached a stable maximum in the neighbourhood of two crores and that in Bengal reached and maintained a maximum of 2¼ crores. The excise revenues of the two provinces for the last three years are shown side by side :—

	Bihar and Orissa.	Bengal.
1931-32	1,22 lakhs	1,57 lakhs.
1932-33	1,22 ,,	1,40 ,,
1933-34	1,24 ,,	1,33 ,,

If the decline in this province had continued on the same scale as in Bengal, at least another 20 lakhs revenue would have been lost.

Temperance.

As in the year 1932-33 there was practically no organised temperance movement in any district. In Patna district the idea of temperance is gaining ground generally owing to the growing interest of the lower castes in social uplift. In the Santal Parganas the efforts of Christian missions to impress the aboriginals with the evil consequences of drink and drugs have failed, as the aboriginals are unable to conceive that it is either a sin or a crime to drink.

Country spirit.

The number of licences for the retail sale of country spirit in the distillery areas fell from 1,316 in 1932-33 to 1,125. 87 new shops were opened, but 278 existing shops were converted into outstills. In addition 68 new

outstill shops were opened. The revenue from licence fees and duty from distillery spirit fell from Rs. 37,66 to Rs. 32,91, a decrease of Rs. 4,75. This was more than balanced by a rise in the revenue derived from outstill licences from Rs. 5,13 to Rs. 16,10, an increase of nearly eleven lakhs. The *tari* tree-tax system was extended to various thanas in the Saran, Champaran and Bhagalpur districts and continues to work well. The total revenue from *tari* showed a slight increase from Rs. 21,67 in 1932-33 to Rs. 22,43.

Pachwai.

The total number of licences issued for the retail sale of *pachwai* was 408 against 385 in the previous year, while the total number of house-brewing licences was 3,195, a slight increase in comparison with the previous year.

Ganja.

Seven licences were issued for the cultivation of *ganja* during the year against five in the previous year. The total area under cultivation rose from 105.8 acres to 118.78 acres, but the total crop produced decreased by 30 maunds to 694½ maunds. The crop was sufficient to satisfy the demand of the whole province except Orissa and the *ganja* manufactured was certified by the Chemical Examiner to be of good quality. The total revenue from *ganja* declined from Rs. 25,39 to Rs. 23,72.

Opium.

There was small increase in the consumption of opium, but the total revenue fell from Rs. 25,46 to Rs. 23,92. Owing to the reduction in the retail selling price of the drug, the shops had to be settled on lower fees. Propaganda against the practice of administering opium to children was continued by excise officers and in some instances by school and health officers. Six cases of smuggling opium from outside the province were detected but only one case was of any importance. The cultivation of opium has been stopped in Nepal, to the great advantage of this province. Illicit traffic in cocaine is believed to be again on the increase and 16 persons were convicted for illicit sale or possession of this drug against 7 in the previous year.

Earthquake.

In most of the earthquake districts, the district excise staffs were thrown on their own initiative and resource and on the whole they did very well. As soon as possible Superintendents were directed to follow the spirit and not the letter of the rules, so that vendors might obtain regular supplies of liquor and drugs. There was practically no disorganisation and on the whole work continued as usual the day after the earthquake.

CHAPTER X.

The Land and the People.

General.

The characteristics of the province and its inhabitants have been described in the reports of the last few years, and need not be repeated at length. The five administrative divisions of the province fall into three natural divisions, Bihar, Chota Nagpur and Orissa, which differ from each other so completely that only an accident of history could have united their inhabitants under one administration. The rich alluvial plain of Bihar, comprising the Tirhut, Patna and Bhagalpur Divisions, is bounded on the north by Nepal and the lower spurs of the Himalayas and on the south by the Chota Nagpur plateau. It is bisected by the Ganges which flows from west to east and is unbridged throughout its 200 mile course through the province. The entire area is agricultural and densely populated, particularly in the districts north of the Ganges. Muzaffarpur, the most thickly populated district in the province, has a mean density of 969 persons per square mile and the districts of Patna, Saran and Darbhanga are not far behind. There are no hills or jungles except on the northern and southern fringes, where the slopes of the Himalayas and the Chota Nagpur plateau encroach upon the plain; and in Shahabad where the Kaimur hills cover an area of some 800 square miles.

The Chota Nagpur Division covers the central portion of the province and is a plateau which varies in height from 500 to 3,000 feet above sea level. The plateau is rich in mineral resources, particularly coal and iron, and is well wooded except in places where reckless destruction of the forests has denuded the hill sides. The population is largely aboriginal and only in one district, Manbhum, does it exceed a density of 250 persons to the square mile.

In Orissa the district of Sambalpur is separated from the three coastal districts Balasore, Cuttack and Puri by the Orissa States which are now in direct relation with the Government of India and form part of the Eastern States Agency. The two subdivisions of the district of Angul also form two islands of British India among the states of the Eastern States Agency. The three coastal districts are deltaic country formed by the Mahanadi, Baitarani and Brahmani rivers and subject to frequent floods. They are fairly densely populated, Cuttack having a mean density of

596 persons to the square mile. The inhabitants rely almost entirely on the winter rice crop and the failure of the rice crop means scarcity conditions. The districts of Sambalpur and Angul with extensive tracts of forests and uncultivable land support only a light population. The Oriyas are entirely distinct, ethnologically and linguistically, from the people of Bihar and the Chota Nagpur and their racial unity and intense local patriotism is to be recognised shortly by the establishment of Orissa as a separate province.

Communications between the various parts of the province leave much to be desired, although the development of motor traffic in recent years has done something to offset the disadvantages resulting from the fact that railway communications radiate from Calcutta. In Chapter II some indication has been given of the difficulty in improving communications in Bihar owing to the obstacles offered by the Ganges and the river systems of North Bihar. South of the Ganges there is now a first class road from Patna to Ranchi but the railway journey involves going outside the province. From Ranchi to Sambalpur there is now a good motoring road, but it is impassable during the monsoon season. The road from Ranchi to Cuttack ends at Jajpur Road Station, and the last 50 miles has to be travelled by rail. From Cuttack to Sambalpur there is a good motoring road, but one section of 20 miles is closed for traffic during the monsoon season, and heavy rain at other times of the year makes it dangerous. The railway journey from Cuttack to Patna involves travelling via Calcutta and spending a day there.

The racial and physical differences between the various parts of the province being so great, it might be expected that the revenue and tenancy laws would be complicated and diverse, and this in fact is the case. Bihar, Chota Nagpur and Orissa each have their own separate tenancy law and there are special enactments applicable to the districts of Sambalpur, Angul and the Santal Parganas. In the greater part of Bihar and Chota Nagpur the land revenue is permanently settled and in the greater part of Orissa it is temporarily settled. The district of Angul and large areas in the districts of the Santal Parganas, Singhbhum, Puri, Cuttack and Palamau are Government Estates and managed directly by Government.

Land Revenue.

During the year under report there were in all 127,104 revenue-paying estates as compared with 126,328 in the previous year. Of these 113,160 were permanently-settled estates and 13,611 were temporarily-settled estates and 333 were under direct management. There is a constant tendency for both permanently and temporarily-settled estates to

increase in number owing to partition, while the number of directly-managed estates decreases owing to amalgamation.

The current revenue demand fell from Rs. 1,65,79,478 to Rs. 1,65,11,436. The falling off in the current demand was due to (*i*) the settlement and resettlement of the temporarily-settled estates and the estates under direct management in the districts of Monghyr and Bhagalpur and (*ii*) the extinction during the year of the retrospective demand of land revenue settled during the course of the last settlement in the temporarily-settled estates of Cuttack, Puri and Balasore. Including arrears the total demand amounted to nearly Rs. 1,79 lakhs, and of this nearly Rs. 1,62 lakhs were collected. The percentage of total collections to the total demand amounted to 96.99 in the permanently-settled estates, 91.09 in the temporarily-settled estates and 66.26 in the estates held directly by Government. Economic depression and the earthquake contributed to the poor results for the Government estates. The total outstanding balance at the close of the year had risen from Rs. 13.8 lakhs to Rs. 16.4 lakhs, but this increase is partly accounted for by the extension of the date of payment of land revenue for the *kist* of March 1934 in the areas affected by the earthquake.

Cess.

The slump in the coal and mica industries and the closing down of certain iron-ore mines accounts for a decrease in the current cess demand for the year from Rs. 79,67,100 to Rs. 79,42,886. The provincial percentage of total collections on current demand was 94.39 against 96.79 in the previous year. Floods in Orissa, the earthquake in Bihar and general depression in agricultural prices account for this poor collection. The arrears are greatest in Purnea district where jute and tobacco, the chief money crops, are both suffering from a disastrous slump. Some of the big landlords of this district are in considerable arrears and coercive measures are being taken.

Coercive measures.

As usual the sale law was administered with leniency. In districts badly affected by the earthquake sales were not held for arrears of the *kist* of January 1934 until after the close of the year, and district officers were allowed discretion in cases of hardship to accept the payment of arrears left after the March *kist* up till the June *kist*. Penalties and process fees were remitted in the three coastal districts of Orissa where the high floods of August 1933 had done extensive damage to crops.

There were 16,975 defaulting estates liable to sale, but only 298 were actually sold. The figures for the previous year were

14,528 and 319 respectively. The percentage of estates sold to estates liable to sale decreased from 2.19 to 1.75. The number of certificates filed under the Public Demands Recovery Act fell from 65,333 to 57,771 and of these 10,730 were for the realisation of rent due to Government. In 101 cases certificate debtors were sent to jail. 36 were released on full payment and 39 without payment. Two persons were in jail at the close of the year. The remainder were released for various reasons.

Wards and Encumbered Estates.

In the wards and encumbered estates, which are managed by the Board of Revenue on behalf of private proprietors, collection of rent improved in comparison with the previous year, but there is no prospect of the standard of 100 per cent collection on the current demand being approached until there is a widespread improvement in economic conditions. Throughout the province the percentage of total collection on current demand worked out at 91.8 in comparison with 88.8 in the previous year. The outstanding balance due to all estates fell from Rs. 51,95 to Rs. 46,78. In Bettiah, however, the balance increased from Rs. 15,19 to Rs. 18,43 owing to the suspension of collection of rent through the earthquake and floods. The total indebtedness of the estates under management fell by Rs. 2½ lakhs to Rs. 50,80. The estates made large contributions to schools, dispensaries and charities, and in some of them work is done towards agricultural improvement. The Bettiah estate maintains a farm at Byreah which is run on commercial lines and makes a profit. The estate also maintains a herd of Murro buffaloes bought in the Punjab for the improvement of the local breed.

Relations between landlords and tenants.

Relations between landlords and tenants were generally good, although there was friction in some areas. In the Patna Division many of the rents are still payable in produce instead of in cash and this continued to give rise to trouble. The system places the cultivators largely in the hands of the landlords and his servants and offer little inducement to good cultivation. Until the advent of the slump in agricultural prices, these rents were being steadily converted into cash rents upon application by the tenants. The sudden fall in prices was naturally a severe blow to those tenants whose rents were commuted during years of high prices, and many of them are now finding it hard to pay. In Shahabad district there was an improvement in relations. In North Bihar, relations were generally cordial except in Purnea, a district which is largely owned by absentee landlords. In their absence their affairs are managed

by their *amlas* who have little sympathy with the tenants. In the districts affected by the earthquake most landlords allowed time for the payment of rent in the same way that Government had allowed them time for payment of land revenue. The Santals in Monghyr and Bhagalpur resent the fact that the special revenue laws of the Santal Parganas do not apply to them and have a number of grievances. Cesses and *abwabs* are still exacted by some of the landlords and their *amlas*, in spite of steps taken to stop these illegal exactions, and an additional cause for unrest arises from the indebtedness of many of the Santals to their *mahajans*. In recent years large areas of their lands have passed into the hands of money-lenders. A Government Bill to introduce a chapter on the lines of Chapter VIIA of the Bengal Tenancy Act as in force in Bengal is now before the Legislative Council. In Orissa relations continued to be generally good, but in a few estates there was friction and litigation. The proprietor of the Aul estate and the tenants within the ring bundh area of the Kendrapara subdivision were on bad terms.

Survey and Settlement.

During the year revision settlement operations were in progress in the Santal Parganas and Ranchi. The Santal Parganas settlement is very nearly completed. The programme during the year consisted of disposal of cases and appeals and the final check and deposit of records. More than 50 per cent of the objection cases heard were allowed, a result accounted for by the fact that a large number of non-Santal tenants of the Jamtara subdivision live in Bengal and their interests were not properly looked after by their relations and servants left in charge during khanapuri and attestation. In the Chota Nagpur settlement also the survey and khanapuri stages have been completed and the programme during the year consisted of attestation, final publication and fair rent settlement. Records were attested in a total area of 1,355 square miles and finally published in 1,771 square miles. The rents of 29,663 tenants were settled. The operations for the survey of the Patna City municipality and for the assessment to revenue of the unassessed area of the public domain in Shahabad which were begun in 1932, continued during the year. In addition the Department carried out at short notice a survey of the extent of the damage to agricultural land caused by the sand ejected during the earthquake. In all 4,137 square miles were surveyed with great expedition under conditions of great physical discomfort for the staff owing to the intense heat. Three Sub-Deputy Collectors, four temporary non-gazetted Assistant Settlement Officers and five kanungos were employed in this work.

Towards the close of the year the Legislative Council passed the budget estimates for the revision settlement operations in the Dhalbhum estate in the district of Singhbhum and the work has now been commenced.

Forests.

The knowledge that forests perform many important services to mankind besides supplying valuable raw materials has been bought by bitter experience in many countries. Their destruction is followed by changes in climatic conditions, in the character of the soil, and frequently in erosion. The preservation of the reserved and protected state forests of the province is a matter which falls primarily within the sphere of the Forest Department. In Chota Nagpur and the Santal Parganas the Settlement Department has taken valuable practical measures to prevent further deforestation. In the past the jungles have been cut down recklessly to provide villagers with fuel, and indiscriminate grazing by cattle has completed the destruction by preventing the generation of new shoots. The growing rivalry between landlords and tenants over their jungle rights accelerates the rate of destruction. Both have a hereditary right in the jungles, and competition between the two to get as much as possible has encouraged wasteful cutting. The Settlement Department have done a great deal to impress upon both sides the importance of preserving their jungles. Many of the village jungles in Ranchi have been set apart as *rakhats* or reserves. These are usually divided into three parts, one reserved for the malik, one for the raiyats and the third for the common use of the entire village community. The rights of the various parties in these *rakhats* are entered in the Settlement Record, and in some villages panchayats have been formed to see that all concerned act in conformity with the terms under which the *rakhats* were formed. The plan promises well if only the various parties can be persuaded to co-operate for their common good, but already there are disquieting reports of wholesale depredations by one party on the reserves of another. Village reserves are also maintained in the districts of Palamau, Manbhum, and the Santal Parganas. In the latter district the exclusion of village cattle and fuel collectors from the reserves has already resulted in a flourishing growth of sal saplings in numerous places in the Deoghar and Jamtara subdivision.

The Bihar and Orissa Forest Association has done some useful propaganda work. Landlords are showing greater enthusiasm for the reservation of their private forests and in the last three years proposals for the reservation of over 90,000 acres of such forests have been accepted.

The Forest Department is in direct charge of some 3,000 square miles of state forests. Of this 1,850 square miles are reserved forests and 1,156 square miles are protected under the Forest Act. In addition to this 677 square miles of protected forests, which are meant mainly for the supply of the requirements of the people of the locality, are under the control of the civil authorities. The reserved forests are managed on a commercial basis, and if they alone were taken into consideration the Department would have worked at a large profit, in spite of the depression in the timber market. The protected forests, however, are managed under special rules by which Government give away most of the produce to their khas mahal tenants. The total revenue for the year was Rs. 6,85 and the total expenditure was Rs. 6,68 so that for the first time in three years the Department worked at a profit, slight though it was. This result was only obtained by the most drastic curtailment of expenditure. The restricted funds available have had to be diverted to the forests that pay rather than to those which require development and improvement. The present Conservator of Forests is of opinion that the tenants who enjoy the protected forests should pay at any rate enough to meet the cost of their management. It is estimated that the value of the timber, fuel, bamboos, grass, and minor produce taken away free or at concession rates by the tenants, during the year was 2 lakhs 14 thousand rupees.

No picture of the forest resources of the province would be complete without some mention of the reserved and protected forests belonging to private individuals which are not under the direct management of the Forest Department. There are nearly 400 square miles of forests of this type. The principal are those belonging to the Ramgarh Wards Estate and the Bettiah Court of Wards Estate which cover 160 square miles and 102 square miles respectively. The Bettiah Estate has its own forest officer and the forest is worked in accordance with the prescriptions of a working plan prepared by an officer of the Forest Department.

Determined efforts are being made to increase the revenue of the Department by finding new markets for the produce and popularising the type of produce available in the forests of Bihar and Orissa. One of the obstacles to be overcome is the expensive railway freight disproportionate to the value of the produce to be transported. At present only big and valuable timber can stand the high freights. There is said to be a large and fairly steady demand in Calcutta for simul and other suitable box woods, and the question of working the soft wood of the miscellaneous forests in Saranda and Kolhan is under consideration.

Protection from fire.

Special care is taken to prevent fire in areas under regeneration, but in general the only method of protection is to burn the forests under control early in the season so as to save them from disastrous unregulated burnings. Almost the whole of the reserved forests and a small proportion of the protected forests of the province were protected in this way. The idea is to create an extensive net-work of natural fire lines, but the system was not very successful during the year under report and just after the close of the year there were serious fires throughout the province. In Puri and Sambalpur fires were particularly troublesome and many of them were due to incendiarism with various motives, among which were attempts to scare off man-eating tigers and rogue elephants.

Irrigation.

The area under irrigation in this province is small in comparison with that in the Punjab, Bombay, Madras and the United Provinces. Nevertheless the capital outlay on the canal systems of the province amounts to over six crores of rupees and between 850,000 and 900,000 acres are regularly under irrigation. The important canal systems are the Son canals in South Bihar, the Tribeni and Dhaka canals in North Bihar and the Orissa canals. Minor canals are the Teur (Madhuban) and Orissa Coast canals, the latter being purely for navigation. The total area irrigated during the year was 869,250 acres, a drop of nearly 18,000 acres compared with the triennial average. This is mainly accounted for by reduced demands on the Son and Dhaka canals for *kharif* irrigation owing to favourable rainfall. The gross receipts exceeded the working expenses on the Son, Orissa and Tribeni canals, but the others did not pay their way. The total receipts from all canals amounted to Rs. 36,45,480 and the net revenue realised was Rs. 19,77,990, a decrease of over Rs. 2 lakhs in comparison with the previous year. Taking the interest charges on capital into account, there was a net deficit of Rs. 62,961 on the year's working. The Son canals continued to yield a net revenue of over 4 per cent on the capital invested and will be treated as a productive work from the next financial year. The Orissa and Son canals are used to a limited extent for navigation also. Receipts from this source dropped from Rs. 1,21,913 to Rs. 1,04,811. The decrease in tonnage receipts can only be attributed to the general trade depression.

The Irrigation Department is also responsible for protective measures against floods by the maintenance of embankments and drainage systems. The floods in Orissa which have been described in Chapter I did serious damage to some of the embankments and canals. As in the previous year the cut from the Sur lake in Puri to the sea proved well worth the money that has been spent on it.

The moderate floods in North Bihar did not cause any serious damage to embankments.

The earthquake caused extensive damage to irrigation works in Tirhut. The head-works of the Dhaka and Teur canals were badly damaged. The former was repaired in time for *kharif* irrigation, but the latter remained closed for irrigation throughout the year. Embankments were cracked in many places but repairs were rushed through before the flood season commenced.

The re-amalgamation of the Roads and Buildings and Irrigation Branch of the Public Works Department which was one of the recommendations of the Retrenchment Committee appointed in 1931 took place with effect from the 1st April 1933. It is not necessary to burden this report with the details of the changes which were necessary to effect the amalgamation but it may be mentioned that the Chief Engineer, Irrigation, is now in direct charge of the Son canals and the post of Superintending Engineer, Son Circle, and a number of subdivisions have been abolished.

Communications.

During the year the Public Works Department maintained a total length of 1,689 miles of road, comprising 1,468 miles of surfaced and 221 miles of unsurfaced roads. This represents a slight increase over the previous year. The increase is due to the provincialisation of the district board road between Kodarma and Singrawan. This road is 18⅝ miles in length and forms an important section of the new Patna-Ranchi road. The local authorities maintain 2,781 miles of surfaced and 27,650 miles of unsurfaced roads, excluding roads within municipal limits maintained from municipal funds.

Important road development schemes are now financed by subventions from the Road Development Account. This account is maintained from the proceeds of an additional duty on motor spirit which has been levied by the Government of India since March 1929. After the deduction of ten per cent as a reserve for administrative expenses, research and special grants, subventions are allotted to the provinces in the ratio which the petrol consumption in each province bears to the total consumption in India during the previous calendar year. A lump sum is also allotted to the Government of India for distribution among minor administrations and Indian States. The additional duty was levied for five years in the first instance and the period was due to expire in March 1934, but the Central Legislature have since adopted a resolution which will enable the duty to be continued indefinitely. In the administration of the Road Development Account, the Government of India are advised by a Standing Committee for Roads of the

Central Legislature. The provincial programmes of road development to be financed from the Account have to be referred to the Committee. Since the inception of the Account, the local Government have received altogether Rs. 15,47,785 and their share for the year 1933-34 amounted to Rs. 3,11,635. The unspent balance of these grants at the disposal of the local Government at the close of the year was Rs. 5,59,935.

The principal project which the local Government have been able to undertake from these grants has been the construction of an arterial road to connect Patna through Bakhtiarpur, Bihar, Rajauli and Kodarma with the Grand Trunk road at Burhi. The work included the improvement and metalling of the existing hill road 11 miles long between Debour and Kodarma, the construction of a new road 7 miles long between Rajauli and Debour, and the widening, raising, and metalling of the 19 miles of district board road between Bakhtiarpur and Bihar. The first two sections were almost completed during the year. Delay in land acquisition at several points retarded the progress of the third section, but it is hoped to complete it by the close of the year 1934-35. Approximately Rs. 7¼ lakhs have already been spent on these sections.

During the year a new project to be financed from the Central Road Development Account was commenced, viz., the construction of an all-weather metalled road to connect Patna with Arrah. The estimated cost of the work is nearly Rs. 7 lakhs; the high cost being due mainly to the fact that the road crosses for most of its length the spill of the Son river, and an exceptionally large number of bridges and causeways will have to be built. Construction work has made considerable progress although hampered by floods. During the year all bridges, culverts, causeways and earthwork were completed or nearly completed on the section between Arrah and Koilwar, and between Koilwar and Bihta the masonry work of most of the bridges had been completed up to formation level. The total expenditure incurred during the year was Rs. 2,32,994.

The total mileage of major railways remained at 3,548 miles, of which 2,046 miles were broad gauge. In addition there were 150 miles of light railways. The growth of road transport has been of great assistance in improving the backward communications of this province, but competition between road and rail transport has now reached the stage when some form of control is essential if the railways are not to run at a permanent deficit. A special rail-road enquiry was conducted during the year 1932 by Mr. K. G. Mitchell, Road Engineer with the Government of India, and Mr. L. H. Kirkness, Officer on special duty with the Railway Board.

Their report was published in 1933 and was followed by a rail-road conference in Delhi with representatives from each province. It is hoped by a series of such conferences to obtain a considerable degree of co-ordination and uniformity in the control of motor transport.

Effect of the earthquake.

The great majority of the roads and bridges destroyed by the earthquake in North Bihar are not under the control of the Public Works Department but of the district boards. The enormous strain thrown upon the Department will, however, be appreciated from the following enumeration of the buildings under their charge which were destroyed or seriously damaged on 15th January.

(A) *Buildings destroyed.*

(1) At Laheriasarai (Darbhanga).—The hospitals, the jail and upper storey of the Judge's court.

(2) At Muzaffarpur.—The Collector's and Judge's residences, the jail, and the Judge's and Collector's courts.

(3) At Motihari, Sitamarhi and Madhubani.—Almost all the Government buildings were destroyed.

(4) At Chapra.—The residence of the Civil Surgeon and the hired residences of the Collector and the Judge.

(5) At Bhagalpur.—The Executive Engineer's residence and Excise Superintendent's office.

(6) At Monghyr.—The residences of the Deputy Superintendent of Police, Sub-Deputy Magistrate, Sadr Subdivisional Officer, Sub-Judge, Superintendent of Police, Civil Surgeon, part of the Circuit House and some of the jail buildings.

(7) At Purnea.—The new Circuit House, Zila school, new Civil Court, parts of the Collectorate, residences of the Superintendent of Police, Civil Surgeon and Headmaster, Zila school.

(8) At Patna.—The residences of the Hon'ble the Chief Justice (the main building of the Chhajjubagh house), Commissioner, Superintending Engineer, District Judge, Principals of the Bihar College of Engineering and Medical College, Superintendent, Government Printing, also the Girls' High school and the Government Press building.

(B) *Buildings seriously damaged.*

(1) At Laheriasarai.—Lady Doctor's quarters, Assistant Surgeon's quarters, Registration office, Manual Training class, Northbrook school and those of the Banwari Lal Hospital buildings which did not collapse

(2) At Muzaffarpur.—Police buildings, Women's Training school, Zila school class room building, Physics Lecture Theatre, Greer Bhumihar Brahman College, etc.

(3) At Motihari.—Deputy Collector's residence, first set, residence of the Superintendent of Police, Reserve Police Barrack, quarters for inspector and sub-inspectors of police, etc.

(4) At Chapra.—Munsif's residence, etc.

(5) At Bhagalpur.—Commissioner's office and residence, Judge's court, Additional Collectorate, Central Jail and European Club House.

(6) At Purnea.—New record room, Registration office, Civil Surgeon's office and Public Works Department Subdivisional Officer's residence.

(7) At Patna.—The residences of the Deputy Director of Surveys, Deputy Superintendent, Government Press, Principal, Badshah Nawab Razvi Training College, the High Court, Darbar Hall, Government House and the Secretariat Clock Tower, etc.

(8) At Ranchi.—The Judicial Commissioner's Court building was damaged to a certain extent.

(9) At Palamau.—The residence of the Superintendent of Police was slightly affected.

The progress made in reconstruction and repair and the problems which had to be faced have already been discussed in Chapter II.

CHAPTER XI.

Agriculture and Co-operation.

Weather and Crops.

The rainfall during the year under report was adequate in most districts and fell at opportune moments. The monsoon precipitation was irregular, but on the whole beneficial. In July the fall was above normal. In August it was normal in Bihar but excessive in Orissa. In September and October it was above normal in some parts and in deficit in others. From the agricultural point of view weather conditions were generally good, except in the districts of Cuttack and Puri which suffered from serious floods and of Palamau which suffered from drought. The earthquake occurred after the winter rice crop had been harvested and did not damage the standing *rabi* and sugar-cane crops to any extent, although by putting out of action a number of sugar mills and leaving extensive deposits of sand on the fields it gave rise to two agricultural problems of the first importance. These problems have been discussed at length in Chapter II and will receive only brief mention here.

The best that can be said of the economic condition of the people during the year is that it did not deteriorate. There was a further slight decline in the prices of rice and wheat; tobacco and chillies remained stationary at the same low level as last year, while linseed and other oil-seeds recorded a minute rise. Sugar-cane continued to be the mainstay of the cultivators in North Bihar. The earthquake gave rise to a momentary stoppage in agricultural operations in North Bihar, but subsequently the distribution of loans and grants on a large scale was responsible for a distinct improvement in the economic outlook.

Autumn crops.

There was a decrease in the area under *bhadai* crops largely owing to excessive rain and floods in the districts of Muzaffarpur, Darbhanga, Purnea and Cuttack, but on the whole the harvest was satisfactory and estimated at 89 per cent of the ten years' average. The total yield of autumn rice was estimated at 19,123,000 cwt., a slight increase over last year.

Winter rice.

Winter rice is the most important crop in the province. The harvest was generally good and was estimated to be 92 per cent of the past 10 years' average. The crop suffered extensive damage through floods in the districts of Cuttack and Puri. Portions of Patna and Shahabad districts also suffered from irregular rainfall and floods, while in

Palamau the rainfall was deficient. The total yield from this crop was estimated at 3,321,870 tons compared with 3,250,570 tons in the previous year. The area sown with rice was considerably less than normal owing to the floods in Cuttack and Puri districts.

Rabi crops.

Bihar is the chief *rabi*-growing tract, although *rabi* crops are also of importance in Cuttack and some districts of Chota Nagpur. The floods in Cuttack and Puri districts were followed by the free distribution of *rabi* seeds and as a result the area under *rabi* crops in these districts showed a marked rise. Light rain during the early months of 1934 was of considerable benefit and on the whole the yield was satisfactory. The outturn of the wheat crop was estimated at 89 per cent of the past ten years' average and of the other *rabi* crops at 84 per cent.

Jute.

The important jute districts of this province are Purnea and Cuttack; the crop is also grown on a small scale in the districts of Champaran, Muzaffarpur, Darbhanga, Bhagalpur and the Santal Parganas. Conditions were fairly good in all districts except Purnea, but the crop must be described as a poor one because more than two-thirds of the total yield comes from Purnea. The total yield of jute was estimated at 448,200 bales compared with 408,200 bales in the previous year, which was also a poor one.

Sugar-cane.

The area under sugar-cane continues to rise steadily and it is estimated that during the year under report there were 418,000 acres under this crop in comparison with 301,700 in the previous year. The sugar industry is spreading in South Bihar as well as in Tirhut, where it is concentrated, and the erection of two new mills in Shahabad district is certain to lead to an increase in the importance of the crop there. The season was exceptionally favourable to the crop and the total yield is estimated at 95 per cent of the past ten years' average.

Linseed.

The estimated area under this crop was 631,500 acres as against 640,800 acres in the previous year. Prices showed a definite upward tendency as a result of the preferences accorded by the Ottawa Agreement. In the more important markets prices rose by annas two to four per maund, although little if any advantage accrued to the cultivator.

Cropped area.

The total area cropped during the year was 24,179,900 acres, of which 4,985,400 acres were cropped more than once so that the gross area of crops was 29,165,300 acres. The area under winter rice rose by 1.30 per cent,

that under autumn rice by 1 per cent and that under jute by 13 per cent. There was a decrease in the area under *rabi* crops owing to unfavourable conditions at sowing time and the earthquake.

Agricultural research.

Research on agricultural problems of more than provincial importance is financed by the Imperial Council of Agricultural Research. The two principal research enquiries of this nature now in operation in the province are those on sugar-cane and rice.

Sugar-cane.

The main station is located at Musahri near Muzaffarpur. South of the Ganges cane is grown under entirely different conditions and the growing importance of the sugar industry in South Bihar led to the establishment of a sub-station at Patna in November 1933. Research work is directed mainly to the production of improved varieties of cane to suit different local conditions in the province. New varieties from Coimbatore and elsewhere are under trial with a view to the selection of varieties combining high sugar content with low fibre and good keeping qualities. It is also important that the cane should mature at a suitable time for acceptance by the mills. Unfortunately the earthquake has broken the continuity of the research and studies on many problems will have to be commenced from the beginning again. Heavy deposits of sand occurred on most of the plots belonging to the station at Musahri, but the land has now been largely reclaimed.

Rice research.

The principal station is at Sabour but there are sub-stations at Kanke and Cuttack, in order to facilitate the study of the various types of rice under the different soil and climatic conditions prevailing in Chota Nagpur and Orissa. There are also testing stations at Sepaya, Gaya, Chaibassa and Sambalpur. A number of promising lines of enquiry are being pursued. One of the more interesting is the search for saline and flood-resistant paddies for the coastal and flooded tracts of Orissa. An experiment is being made by the rotation of paddy with leguminous catch crops; the effect of the latter on the succeeding rice crop is being watched.

Minor schemes.

During the year the Imperial Council of Agricultural Research sanctioned an economic enquiry into the cost of cultivation of sugar-cane and the crops grown in rotation with it in Bihar at a total cost of Rs. 37,135. Two districts, Saran in North Bihar and Patna in South Bihar, have been selected for the enquiry. Each district is in charge of a district supervisor and there are six village investigators under each of these officers. The Range Officers of the North and South Bihar Ranges are in immediate charge of the scheme.

The scheme for designing a power-driven sugar-cane crusher has now been completed. A one-ton crusher was successfully designed and manufactured in 1932. During the year under report further modifications were made. A new experimental mill was constructed and has been given extensive trials. It is capable of crushing 15 maunds per hour of hard-rinded cane, and an engine developing less than 8 Brake Horse power can run it. It is anticipated that this machine will prove very successful in the open market.

One of the most important features of the work of the Agricultural Department is the research and propaganda work undertaken at the experimental farms. The central farms of each of the five ranges are at Sepaya, Patna, Sabour, Kanke and Cuttack; each of these has attached to it a number of small farms scattered over the range. These farms are run on a self-supporting basis and although expenditure on them amounted to Rs. $1\frac{3}{4}$ lakhs during the year they paid back to the treasury nearly a lakh; so that the net cost to Government is only about rupees eighty thousand. The principal objects of the work done on these farms may be stated briefly thus—to introduce new varieties whereby the outturn of staple crops may be increased, while the cost of production is reduced; to investigate and improve fodder crops and their cultivation; to improve cattle; and finally to popularize the improved methods and practice among the cultivators. During the year almost all the farms continued to devote a great deal of attention to paddy, sugar-cane and wheat. The elaborate nature of the research will be realised when it is stated that there are 100 varieties of sugar-cane under trial at Sepaya and 40 at Patna. Valuable results were obtained from manurial trials on sugar-cane. In North Bihar a combination of 40 lbs. of nitrogen with 50 lbs. P_2O_5 is the best dose for sugar-cane while in Chota Nagpur 80 lbs. of nitrogen alone has given very heavy yields. Anything more than 60 lbs. of nitrogen is definitely uneconomical on the heavy soils of South Bihar. As usual the cultivation of fodder crops received careful attention. The most successful fodder crops were Berseem, where irrigation was available and Napier grass for odd bits of uncultivated land. Further experiments were made on the possibility of growing desirable fruits in the plains of Bihar and Orissa, and oranges and other citrus fruits were planted at Patna, Sambalpur, Angul, Khurda and Cuttack. A fruit research scheme sanctioned by the Imperial Council of Agricultural Research started just after the close of the year.

Live-stock.

Much valuable work is being done in building up pedigree herds and improving the breeding of local cattle. At Kanke there is a pedigree herd of *Sahiwals* and *Tharparkars;* the average yield of milk per animal has been raised in one year from 15.7 lbs. to 19.4 lbs., an excellent result which has been obtained by careful management and the ample supply of fodder. Mention was made in last year's report of the attempt to secure that there should be a uniform supply of milk each month, by regulating the number of cows served each month. The experiment has so far not been a marked success, but the attempt has not yet been abandoned. Other herds are maintained at Patna, Sabour and Cuttack, and at Sepaya there is a buffalo-breeding herd. Cultivators are taking an increasing interest in these herds and at Sabour and Sepaya a large number of cows were brought to the farm for service by the herd bulls.

Poultry is receiving attention at Patna, Kanke and Cuttack. The flocks of white Leghorns at Patna and Kanke continued to do well. At Patna 48 cocks were distributed to people interested in poultry and 2,212 eggs were sold for hatching. At Kanke the flock now consists of 5 cocks 34 hens and 250 chickens and it is hoped that by next winter it will be possible to distribute cocks and hatching eggs to the public. The flock at Cuttack has only just been started and consists of one cock and six hens; 59 chickens were raised during last cold weather and are doing well.

Propaganda.

The extensive research work undertaken by the Department would be of little value if steps were not taken to communicate the results and popularize improved methods of cultivation among the illiterate raiyats who form the bulk of the population of the province. The Department suffers from shortage of trained overseers and kamdars for demonstration work and this was particularly felt during the year under report because many overseers and kamdars had to be diverted to flood relief work in Orissa and earthquake relief work in Bihar. Nevertheless 9,734 field demonstrations were held during the year against 9,358 last year. As a result of the demonstrations 6,257 maunds of cane seed, 3,412 maunds of seed of other crops, 364 maunds of manures and 310 implements were sold direct by the Department in North Bihar. Owing to their depressed financial position the co-operative banks did not display as much activity as in previous years in spreading agricultural improvements, but a number of central banks in North Bihar and Orissa continued to maintain kamdars under the general guidance of the range officer.

Agricultural education.

Three middle schools in the province hold agricultural classes for the vocational training of their students, and other educational authorities are contemplating opening similar classes.

Six stipendiaries at the Nagpur Agricultural College and two at the Cawnpore Agricultural College continued their studies, and four of them were due to complete their course just after the close of the year. The central farms continued to train their own kamdars and overseers. In addition eight private individuals and a number of men deputed by the central co-operative banks received training in practical agriculture in these farms. A set of rules have been drawn up for the purpose of encouraging and regulating the admission of sons of zamindars and cultivators for such training in practical agriculture at the central farms.

The effect of the earthquake on the Department.

The earthquake created two serious agricultural problems, viz. the problem of disposing of some 150 lakh maunds of sugar-cane which would normally have been crushed by the damaged factories, and that of reclaiming some 615 square miles of agricultural land affected by sand deposits. The methods by which these problems were solved have already been described at length in the chapter dealing with the earthquake, but it is desirable to make some mention here of the extent to which the energies of the Agricultural Department were diverted to this work. To assist in distributing bullock-driven crushers and to teach the villagers the forgotten art of making good *gur*, two Assistant Directors of Agriculture, 20 agricultural overseers, and 40 trained kamdars were mobilized and put through a refresher course at the sugar research stations. They were then distributed over the entire affected area and did extremely useful work. An additional Assistant Director of Agriculture was employed in charge of 20 peripatetic demonstration parties in demonstrating suitable methods of reclaiming sand-damaged land.

Cattle-disease.

There was no widespread epidemic of any of the deadly diseases including rinderpest and hæmorrhagic septicæmia during the year, although outbreaks of contagious diseases were as usual common all over the province. The prompt preventive measures taken by the Veterinary Department undoubtedly have considerable effect in localizing such diseases. Altogether there were 5,865 outbreaks and of these 5,250 were attended by the staff of the Veterinary Department. 108,454 animals were affected and of these nearly 80 per cent were attacked by foot and mouth disease. A noticeable feature of the figures when

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compared with those of the previous year, is that while the number of attacks increased by over 19,000 the number of deaths fell by nearly 6,000. The fact is that foot and mouth disease is not as a general rule fatal. A case of anthrax occurred among the Mounted Military Police horses of Jamshedpur. The animal died immediately after detection but the remaining horses were protected with anti-anthrax serum and no further trouble occurred.

The number of preventive inoculations rose by more than 25,000 to 189,417. Most of the local bodies have now cleared off their old outstanding debts and are in a position to incur fresh expenditure on sera and vaccines. 84,929 animals were inoculated against rinderpest by the serum alone method and 34,630 by the experimental " Goat adapted virus " method. The results of inoculation by the latter method are so far very encouraging.

Veterinary hospitals.

There are 33 veterinary hospitals in addition to the Patna Veterinary College Hospital. The total number of patients treated at the 33 hospitals was 91,527 as compared with 83,273 during 1932-33. In addition 17,335 castrations were performed and 12,774 cases supplied with medicine though not brought to the hospital. Field dispensaries continued to do very useful work and at the close of the year 134 were working. Although this is only the second year of their formation they have become extremely popular with the cultivators. 100,730 animals were treated, an increase of nearly 35 per cent over the previous year.

As usual stud bulls were maintained at the various veterinary hospitals, but in general the local authorities do not take as much interest in the improvement of their local breeds as could be wished. 96,222 scrub bulls were castrated during the year.

Propaganda.

Another magic lantern was purchased during the year and each of the three ranges is now provided with a lantern and slides. Lectures on various veterinary subjects were greatly appreciated by the public and altogether 3,374 lectures were given. The field veterinary dispensaries have proved a very good medium for propaganda work.

The Veterinary College.

There were 52 students on the roll of the College at the beginning of the year, but eight of these left for medical or private reasons before the close of the session, 12 students came from other provinces. In all 26 were successful at the annual examinations. The post-graduate course was held again and all the six officers who attended it were awarded certificates of proficiency.

Cruelty to animals.

The Society for the Prevention of Cruelty to Animals employed and controlled four cruelty inspectors. 2,977 cases were either prosecuted or sent up for trial under the Cruelty Act and of these 2,201 ended in conviction. The Society did not hold their animal show and contributed the sum of Rs. 250 saved to the Viceroy's Earthquake Relief Fund. In addition a sum of Rs. 500 was distributed to alleviate the sufferings of earthquake-affected animals at Muzaffarpur and Monghyr.

Co-operative societies.

The unprecedented slump in the prices of agricultural products and land which commenced in the year 1930-31 and is still the most prominent feature in the economic landscape of the province, would have been a severe test for the co-operative movement even had it been conducted from the time of its inception on the soundest and most cautious principles. In fact the movement was already in difficulties owing to incautious financing and unsound methods, when the catastrophic fall in prices brought it to the very edge of ruin. For the last few years this Chapter has been largely filled with the story of the efforts made to rescue the movement from the effects of these early mistakes. These efforts have been crowned with some measure of success, but the movement is not yet out of danger, and the story of the year 1933-34 is again largely one of caution and consolidation.

The Report of the Bihar and Orissa Committee on Co-operation was published in April 1932. The Report comprised a concise review of the origin and history of the movement in Bihar and Orissa together with the recommendations of the Committee on every aspect of the movement. These recommendations have since been examined by Government and their views published in a resolution, dated the 13th December 1933.

A brief survey of the recommendations of the Committee and the defects which they found in the movement is an essential preliminary to any attempt to grasp the present situation. The recommendations fall into two divisions, those intended to remedy the financial troubles of the movement and those concerning its general conduct and development. On the financial side, the main recommendation was the separation of long-term credit from short and medium term credit. It was largely owing to non-observance of the fundamental principle that long-term loans should not be financed out of funds raised for short terms that the finances of the banks had reached their present tangle. The Committee proposed that

the co-operative organisation should be freed from the burden of attempting to provide long-term credit and that this problem should be solved by the establishment of land mortgage banks. Further recommendations were that steps should be taken to encourage long-term deposits, to maintain fluid resources and to make adequate provision for bad debts. Loans policy should be based rather on the capacity of borrowers to repay out of income than on their capital assets. Some form of effective control over the borrowing policy of the societies should be maintained. To meet the case of wilful defaulters the machinery for the recovery of dues should be strengthened and to enhance the ultimate security of agricultural credit, the restrictions on the transfer of holdings should be relaxed.

Government were in general agreement with the proposals but they were unable to accept the case for the establishment of land mortgage banks. To solve the financial difficulties of the movement, it was at first proposed that long-term capital should be raised by the issue of debentures by the Provincial Bank, the interest on which should be guaranteed by Government. Subsequently this proposal was dropped and instead Government agreed to make a long-term loan of Rs. 16 lakhs to the Provincial Bank. To check over-financing by the societies the Registrar has been vested with statutory authority to prescribe the conditions on which loans may be granted and to reduce maximum borrowing limits where necessary. The question of the removal of restrictions on the transferability of holdings had to be shelved as it was closely bound up with tenancy legislation.

On the non-financial side the Committee found the principal defect in the movement in the general failure to make the primary societies anything more than an inefficient link in a credit organisation. They recommended the creation of a development staff separated from the banking staff and responsible to small committees of keen co-operators. They outlined a scheme for securing orderly and sound development of rural co-operative societies and for the reconstruction of village committees. They urged the need for improving the facilities for training the honorary workers and staff in this side of the movement.

These non-financial recommendations are largely matters for the banks and the Co-operative Federation. Government agreed that the principle of separating the functions of banking and development was sound. They could not, however, commit themselves to any nebulous scheme of development. They agreed that the

training of honorary workers and staff was a matter of great importance, but they proposed to leave this matter to the financing banks and Federation.

The co-operative movement is essentially one which must develop from within. It would be hopeless to launch any general scheme of rural reconstruction, until a true spirit of co-operation has been developed among the villagers for whose benefit the co-operative movement was introduced. This spirit can only be developed by the efforts of earnest and experienced workers who are imbued with a genuine desire for improving rural conditions.

The story of the year under report is, as has already been stated, largely dominated by the watch-words caution and consolidation. 95 new societies were registered, but owing to the liquidation of bad societies the total number of working societies had by the end of the year fallen from 9,054 to 8,901. This represents a decline in the number of societies by 503 since the peak year 1930. This decline must continue for some years to come, for there are still many bad and hopeless societies to be weeded out. The societies, as a whole, are suffering from the effects of reckless and incautious financing in their early years, and there is still a tendency for their position to deteriorate. The table below compares the position this year with last :—

	1932.	1933.
A (Model)	3.1	2.1
B (Good)	11.5	10.2
C (Average)	69.9	69.3
D (Bad)	13.3	15.5
E (Hopeless)	2.2	2.9

The cumulative effect of three years of depression has hit all the societies badly, and the absence of fresh finance to liquefy frozen assets has put even the best societies in difficulties.

The working capital of the Provincial Bank increased by Rs. 10 lakhs during the year and now stands at Rs. 92.15 lakhs. Deposits of all kinds rose steadily in spite of continued reductions in the rates of interest allowed. At one time during the year the rate fell to 3 per cent on all deposits for whatever period. This rate was found to be slightly too low to encourage a satisfactory inflow and the rates were increased to 3½ per cent for deposits for one year and 4 per cent for deposits for two years and more. The previous lowest rates since the inception of the Bank were 4 and 4½ per cent for the two classes of deposits in the year 1932-33.

The statutory reserve of the Bank rose from Rs. 3,25 to Rs. 4,45. The Bihar and Orissa Committee on Co-operation recommended that all classes of societies and banks should maintain a bad debt fund equal to 10 per cent of all outstanding advances. The Board of Directors of the Provincial Bank propose to carry out this recommendation by augmenting the reserve for contingencies annually until it reaches 10 per cent of all advances to central banks and societies. During the year under report this reserve was increased by Rs. 10,000 and now stands at Rs. 1.10 lakhs.

The central banks were again unable to repay the bulk of their obligations to the Provincial Bank. Actual recoveries amounted to Rs. 6,16, of which Rs. 2,31 represented interest. The total demand for the year 1933 amounted to Rs. 30,05, so that there is a huge accumulation of overdues. The position is serious, but the immediate problem has been solved by Government offering to grant a long-term loan of Rs. 16 lakhs to the Provincial Bank. This will enable the Bank to allow the central banks further time for the repayment of their overdues.

The number of central banks and unions remained the same as last year, 66. Their working capital increased by Rs. 1,70 and at the close of the year stood at Rs. 2,27,04. There was an increase in the total reserves of central banks and unions (including bad debt and other funds), but these funds are still very inadequate and it is necessary to stress once again the importance of strengthening them. Total reserves stood at Rs. 17,87, an increase of Rs. 66,000 over the previous year. The deposits held by central banks and unions dropped by Rs. 3½ lakhs and at the end of the year the total amount was a little over Rs. 133½ lakhs. This constituted 70.4 per cent of the total borrowed capital which stood at Rs. 1,89,68. Savings deposits continued to be popular and there was an increase by over one lakh during the year, the total standing at Rs. 17 lakhs. There were heavy withdrawals of deposits from some banks, the most badly affected being the Rohika, Motihari and Siwan banks. These withdrawals were to some extent balanced by a big increase in deposits in other banks, notably those at Bettiah, Bhagalpur and Balasore. Certain banks continue the irregular and dangerous practice of refunding deposits before maturity, regardless of the fact that such refunds only add to their difficulties and lay them open to the charge of favouritism. Revised rules for fixed deposits were issued during the year and it is hoped that with their adoption by the central banks the practice will stop. The percentage of collections fell during the year to the

low record of 6.6, a drop of 3.5 per cent from the low record of 1932. The total amount of principal loan recovered during the year was Rs. 8,29 against Rs. 11,07 last year. The only relieving feature is that the total amount of interest collected during the year rose by 11.5 per cent to Rs. 12,62. While it would be foolish to suggest that economic conditions are not primarily responsible for the heavy accumulation of overdues, or to expect any very marked improvement while the present low prices persist, it must be admitted that inefficiency and slackness among the directorate and collecting staff have contributed to the poor results returned by many of the banks. Central banks must at least realise sufficient to cover their establishment and other overhead expenses and to meet their obligations to their creditors. Many of the banks have adopted the expedient of placing their staff on a subsistence basis and making the balance of their pay dependent on good recoveries, and it is possible that this may result in an improvement. A very disturbing feature is the fact that while the actual recoveries of all banks against their estimated profits were only Rs. 1,76, the cost of management alone of the banks came to Rs. 5,52; the majority of the banks are in fact living on their capital.

The banks advanced loans to the primary societies amounting to Rs. 7,52, an increase of Rs. 1,45 over last year. They continued to exercise the greatest caution in granting these loans. This is the inevitable result of over-financing in past years, but it has the unfortunate effect that credit is often refused to members who are not wilful or dishonest defaulters. The repaying capacity of the members of primary societies is a factor upon which it is desirable to have accurate and detailed information. As an experimental measure, an Assistant Registrar was placed on special duty to classify the loans and estimate the repaying capacity of members of primary societies in certain selected areas.

The Bihar and Orissa Committee on Co-operation pointed out that the main defect in the co-operative movement was the failure to develop non-credit side of the movement: agricultural improvement and rural reconstruction have not received the attention they deserve but have been treated as minor side lines in a credit organisation. Unfortunately financial conditions have again compelled the banks to restrict their expenditure on this side of the movement, and great credit is due to those banks which have been able to maintain their activities in this direction.

16 banks employed kamdars trained by the Department of Agriculture. The Balasore bank retained an agricultural inspector and the Khurda bank a development officer. As usual, a great

deal of attention was devoted to the demonstration and distribution of improved seeds. In South Bihar cane-growing is of increasing importance and in places where mills do not exist the banks carried out demonstrations of the manufacture of semi-refined sugar. The Supaul bank was very successful in negotiating between its cane-growing members and the managers of sugar-cane factories. They succeeded in obtaining a better price for the cane than would otherwise have been obtained, and were able to recover considerable portion of the members' overdues from the sale-proceeds. A number of banks in co-operation with the Department of Agriculture distributed manures, and introduced and demonstrated the use of improved agricultural implements.

Many banks took an interest in the improvement of village sanitation, distribution of medicines, disinfection of wells, inoculation of cattle and the cleaning and repairing of village roads. During outbreaks of cholera and influenza, the Madhipura central bank distributed bacteriophage and quinine. In Orissa many societies stocked either Homeopathic or Ayurvedic medicines for free distribution to members. Cottage industries, in particular, eri-culture and spinning continued to receive attention in Angul, Khurda and Bhadrak. In Bajpur in Khurda members have been taught to manufacture unbreakable toys, ink tablets and liquid ink. The Khunti Home Industries Association in Ranchi circle continued to do useful work and maintained two weaving instructors with the aid of subsidies from the Department of Industries and Co-operative Federation.

An educational experiment which merits mention is the attempt to establish at Bolanga in Puri district a " community school ". The scheme will involve a cost of Rs. 3,600, of which about one-third will be met by the villagers and the remainder with a district board grant and outside subscription. The idea underlying the scheme is that ordinary middle English or middle vernacular schools tend to render the villagers unfit for their hereditary occupation of agriculture and generally dissatisfied with village life. Under this new scheme the instruction would be suited to the social and economic conditions under which they live. An attempt will be made to teach the villagers how to improve their economic surroundings and live a more satisfying and healthy social and cultural life. Instruction will also be given in up-to-date methods of agriculture, cottage industries and marketing. The scheme has evoked great interest and if it is found to develop initiative and character in the students, it may well be tried on a wider scale in other areas.

Among primary societies the number of agricultural credit societies fell by 120; at the end of the year the total number stood at 8,479, and there was a decline in the membership by three thousand. Unfortunately, most of these societies have small membership and very often work in the interests of a few wealthy members. There was no improvement in this respect during the year. The total number of grain *golas* remained the same as before, viz. 70. The majority of these are in Angul, Santal Parganas, Puri and Ranchi districts and their working was, on the whole, satisfactory. The total number of non-agricultural societies decreased by 7, the figure at the end of the year being 310. With a proper spirit of co-operation and honesty, credit societies should be able to do much to improve the lot of people of small means like petty artisans, weavers, fishermen, sweepers, etc. Unfortunately, disloyalty and dishonesty have caused the great majority of the societies which have been started to prove failures.

The financial situation of the Bihar and Orissa Co-operative Federation is far from satisfactory. The collections during the year amounted only to Rs. 1,59 leaving an arrear of Rs. 1,74 excluding the overdues from the liquidated societies. The Federation actually received during the year a sum of Rs. 2,33 including the Government subsidy amounting to over 70 thousand rupees; the expenditure amounted to nearly half a lakh more than this and the Federation had to borrow money from the Provincial Bank. The Federation employed 92 permanent local auditors in addition to a few probationary temporary ones for the audit of agricultural societies with unlimited liability. The Federation also maintains ten assistant auditors and ten junior auditors for the audit of central banks and non-agricultural societies with limited liability. To dispose of the arrear audit of 1932, two extra auditors were placed at the disposal of the chief auditor. Ten propaganda and assistant propaganda officers were retained for the organisation and development of rural reconstruction and other aspects of the non-credit part of the movement.

CHAPTER XII.

Commerce and Industry.

Introductory.

The three principal organised industries of the province are mining, the manufacture of metals and of recent years the manufacture of white sugar. We may commence this chapter with a brief summary of their importance in the economic life of the province. The Chota Nagpur plateau contains some of the richest deposits of coal and other minerals in the world. The Jharia coal-field in Manbhum is still the most important in India and produced in 1933 more than one-third of the total output of coal in the whole of British India. In Singhbhum there are valuable deposits of iron, manganese and copper ores, while in Hazaribagh there are the biggest deposits of mica known to exist. In fact Chota Nagpur regularly produces more than half the coal and practically all the iron-ore, copper and mica mined in British India. At Jamshedpur in Singhbhum is by far the most important Iron and Steel Works in India, the Tata Iron and Steel Company, Limited. Built on a site which was almost uninhabited in 1907 Jamshedpur is now a city of nearly 100,000 inhabitants with a system of roads, water-mains, drainage sewers and other municipal services which are not surpassed anywhere in British India. The town is also the site of a number of less important industrial concerns, chief among which may be mentioned the Tinplate Company of India. The sugar industry in North Bihar has been built up under the stimulus of a high protective tariff on foreign sugar. The number of registered sugar factories is now 29, more than double the number in 1931. Of these four are in South Bihar, where the industry is now spreading. The growth of the industry has been of enormous importance to the agriculturist in North Bihar, and the high prices obtainable for sugar-cane have enabled him to recoup his losses from the slump in the prices of tobacco, chillies, and other valuable crops.

One may speculate as to the great industrial potentialities of the province when her mineral resources are fully developed, but it is as well to bear in mind a few figures which indicate that the province is and always must be predominantly agricultural. There were in 1933 only just over 100,000 persons employed in all kinds of mining and just over 72,000 persons employed in

factories. At the 1931 census there were recorded 17 million persons who were classed as earners; so that only just over 1 per cent of the working population are engaged in three main highly organised industries. Whatever industrial development takes place in the future, it is improbable that these proportions will be greatly changed, for the expansion of industry will be largely balanced by the improvement of machines, so that less labour is required. The development of mineral riches of the province will doubtless bring wealth to a fortunate few, but for the great mass of the population the main hope of prosperity must lie in better and more intensive agricultural methods, and the development of cottage industries.

Coal.

Coal-mining is by far the most important of the mining industries of the province and roughly four times as many persons are employed in coal-mining as in all other forms of mining put together. The industry passed through another year of acute depression, and there was no sign of a break in the prevailing gloom. Production for the whole of India has fallen from 22½ million tons in 1930 to just over 18 million tons, and the province has borne more than her comparative share of this loss; production in Bihar and Orissa has fallen from nearly 15 million tons in 1930 to just under 11 million tons in the year under report. The average number of persons employed daily in connection with the coal-mines has fallen steadily for the last five years and is now only 86,211, a drop of fourteen thousand in two years.

The most unsatisfactory feature of the present situation is the continued decline in the pit-head price obtainable for the coal. Prices fell by about 4 annas in comparison with the previous year and the average price obtained was only Rs. 2-14-0, which is a definitely unremunerative price. Some collieries were compelled to close down, while many worked only 3—4 days in the week during the greater part of the year. To maintain some equilibrium between the cost of raising the coal and the unremunerative pit-head price the coal companies have had recourse to reductions in the wages of their labour, and to concentration on the most easily worked coal. The standard of living has fallen in the mining areas, and many miners have been thrown out of employment. Colliery proprietors instead of working out their mines properly are compelled to take the most easily won coal, with the result that great quantities of coal are irretrievably lost. Coal is a national asset, of which supplies are not inexhaustible and bad mining methods to-day may easily result in a serious shortage in the future.

There are various possibilities of assistance to the industry in its plight. A scheme for restricting the production of coal presents many attractive features, and at the close of the year a Coal Restriction Scheme was under consideration. (It has since been rejected by the Government of India.) A reduction in railway freights might materially assist, for in many parts of India the pit-head price is only a portion of the cost to the consumers. In the Punjab, for example, the retail price of Rs. 15 per ton for coal represents Rs. 12 freight and Rs. 3 pit-head price.

Mention has been made in previous reports of the valuable work done by the Indian Soft Coke Cess Committee in popularising the use of soft coke as fuel for domestic purposes. Their activities continued during the year under report and new propaganda centres and selling departments for soft coke were opened in the principal towns of the United Provinces and in Bombay and Rangoon. As a result the market expanded slightly, and 804,685 tons of soft coke were despatched from the province to other parts of India as against 736,776 tons in the previous year. The price, however, fell in sympathy with coal. There is great scope for expansion in the use of soft coke as a domestic fuel, and it would be of inestimable benefit to agriculture if it were to replace cow-dung as the ordinary village fuel.

The number of females employed underground continues to decline rapidly; the average daily number so employed during the year was only 7,292 which represents a decline by nearly 30 per cent in two years.

There was an increase in the number of cases of smallpox but the general health of persons living in the mining settlements was good. The Jharia Mines Board of Health maintained their excellent record, although depressed conditions prevented any expansion and new construction. The death-rate at the Jharia Settlement was 13.34 per 1,000 as compared with 15.68 in the previous year. The Maternity and Child Welfare Scheme was maintained as usual and there was also considerable activity in anti-leprosy work.

The supply of mining labour exceeded the demand and there was a further reduction in wages. The earnings of those in work were also affected by the fact that many collieries only worked three or four days a week during a considerable part of the year. However relations between employers and labour were good and there were no strikes of sufficient importance to merit mention.

Iron.

The total output from the iron-ore mines in Singhbhum was 616,946 tons, a decrease of 50,000 tons compared with the previous year, and less than half the production in 1929. The number of persons employed fell from 3,625 to 3,191.

On the manufacturing side there was a distinct improvement in the outlook for the iron and steel industry towards the close of the year. The demand for plates, bars and galvanised sheets greatly increased and important extensions were carried out by the Tata Iron and Steel Company in their sheet mills. The number of persons employed by this concern rose from 18,896 in 1932-33 to 20,845 in the year under report, and there is some prospect of the plant being run to its full capacity during the ensuing year.

Mica.

The mica-mines in Hazaribagh are the most important in the world; mica is also mined in Gaya and in boom years in Monghyr. The demand for mica has been very restricted in recent years but during the year under report exports showed some improvement both in quantity and in value. The total production for the province rose from 24,097 cwt. to 32,674 cwt.; three-quarters of the total output came from Hazaribagh. The number of persons employed in connection with the mines rose from 10,056 to 10,629.

Copper.

The entire output of copper-ore in British India comes from the copper-mine of the Indian Copper Corporation Limited at Mosabani in Singhbhum district. The mine has been developed in recent years and the output has expanded steadily in spite of the depression. The total output of ore rose from 175,375 tons in 1932 to 201,722 tons. Only six years ago the output was a mere 5,010 tons. The Indian Copper Company are developing a new mine at Dhobani in the same area and it is anticipated that production will commence very shortly.

During the year 4,800 tons of refined copper were produced. The rolling mill produced 6,143 tons of yellow metal sheet and consumed 3,774 tons of refined copper in the process.

Other important minerals produced in the province are given below together with the output for the year :—

	Tons
Manganese ore (Singhbhum)	7,453
Chromite ore (Singhbhum)	7,068

	Tons.
Stone, chiefly igneous rock (Gaya, Shahabad, Sambalpur, Monghyr, the Santal Parganas, Singhbhum).	464,891
Limestone (Shahabad, Ranchi, Singhbhum).	217,320
Slate (Monghyr, Singhbhum)	1,812
Fire clay (Manbhum, Sambalpur) ...	21,711
China clay (Singhbhum, Bhagalpur) ...	10,549
Sandstone (Shahabad)	24,557
Steatite (Singhbhum and Hazaribagh) ...	1,108
Gold (Manbhum and Singhbhum) ...	267 Ounces.

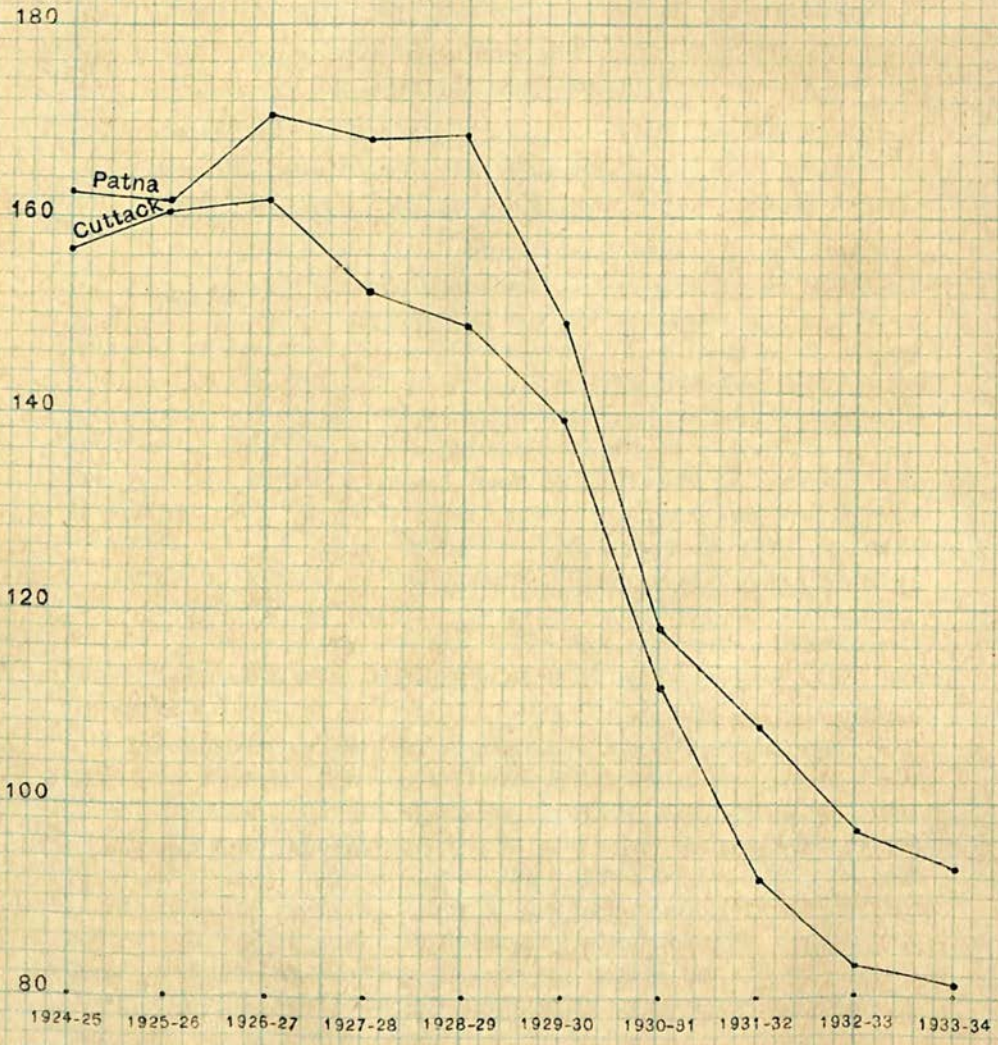
Factories.

The number of working factories (and by this term is meant a manufacturing concern which uses power and employs at least 20 workmen) rose to 289, an increase of six over the previous year. The increase is largely accounted for by the addition of ten new sugar factories. Depression still hampered most other manufacturing industries and the number of factories which remained closed throughout the year rose to fifty-eight, a record and an increase of six over the preceding year. Of the factories closed throughout the year 18 were rice-mills and 12 indigo factories. The indigo industry has been so completely worsted in competition with synthetic dyes that there are now only three working factories, and they are maintained largely for sentimental reasons. The ten new sugar factories all make white sugar and are capable of crushing from 300—1,000 tons a day.

The number of persons employed in these factories rose from 65,515 to 72,254. The sugar industry absorbed the greater part of the increase, but jute-spinning, general engineering and the manufacture of tobacco and bricks and tiles each accounted for increase of over four hundred. The wire-nail industry did not suffer from foreign competition to the same extent as during the previous year, but firms manufacturing electric cables experienced great difficulty in meeting Japanese competition. Towards the end of the year, heavy reconstruction work following the earthquake improved the prospects of engineering firms.

The number of factories damaged during the earthquake was 124, of which 61 suffered severely and 2 were entirely ruined. The total material damage to these factories was in the neighbourhood of Rs. 15 lakhs. The sugar factories are likely to recoup their losses within a short time, but the same cannot unfortunately be

Chart showing rise and fall in cost of living of the labouring classes at Patna and Cuttack as compared with pre-war normal period ending 1914 which has been taken = 100.



said of the many rice, flour, oil and *dal* mills, which were badly damaged. Many of these mills were already in serious straits owing to the depression and working far below their full capacity.

An account has already been given in Chapter II of the measures taken for the disposal of " distress " cane in North Bihar after the earthquake. These operations were conducted under the charge of the Director of Industries.

The total number of accidents in all factories was 1,981, of which 23 ended fatally. The enormous expansion of the sugar industry has resulted in an acute shortage of skilled labour and qualified supervisors for dealing with the highly technical machinery. Inevitably there has been an increase in the number of accidents. A number of the new sugar factories are unfortunately noted for indiscipline and bad feeling between labour and the management.

Owing to the retrenchment of one inspector in the interests of economy it is no longer possible for all the factories to be inspected by regular inspectors. An emergency plan has been introduced whereby 150 of the smaller factories are inspected by the Subdivisional Officers, who are known in this capacity as local inspectors. The local inspectors work under the District Magistrate who is in effect the Chief Inspector of Factories for his district. A detailed book of instructions has been prepared for their use by the Chief Inspector. The scheme was inaugurated on the 1st July 1933 but it is not yet possible to say whether the plan has proved a success or not.

State aid to industries.

For the third year since the passing of the Provincial State Aid to Industries Act no provision was made in the budget for financial aid to industry. The progress of realisation of outstanding loans was slow owing to trade depression and damage done by the earthquake.

Cost of living.

The statistics collected by the Department of Industries indicate that Cuttack continued to be the cheapest and Jamshedpur the dearest centre for a workman to live in. Owing to the continued fall in the price of staple food grains there was a steady downward trend in the cost of living and little seasonal fluctuation. Taking the mean average of the cost of living for the whole year, the fall compared with the pre-war normal level was 7 per cent at Patna, 6 per cent at Jharia, 19 per cent at Cuttack, 13 per cent at Ranchi. The cost of living at Jamshedpur was 5 per cent higher than the pre-war level.

Owing to the prompt action taken by the district authorities and relief societies, the earthquake did not affect the cost of living index figures at Muzaffarpur and Monghyr, in spite of the complete disorganisation of the food markets.

Cottage industries.

Every one who is interested in the uplift of rural India is aware of the importance of providing the agriculturalist with a profitable occupation for his spare time, and of the harm that has been done by the invasion of mass production goods into the sphere of the village craftsman; but it is not generally realised how much is done by Government to encourage the cottage industries of the province. This forms an important part of the work of the Department of Industries. Hand-weaving is the most important cottage industry of the province. For its encouragement a weaving demonstration staff consisting of seven supervisors and 49 *mistris* is maintained for the whole province. During the year an improved method of warping and sizing was introduced which reduces the number of operations in the preparation of warps for the loom from four to two. 71 of these warping sets were introduced in weavers' cottages mainly in the Patna area. The working of the improved loom was demonstrated in 260 new villages while the weaving of finer counts and new designs was shown in 285 centres. The processes of fast dyeing and printing were demonstrated in different centres by dyeing *mistris*. In addition, technical advice was given both by the weaving supervisors and dyeing demonstrators to private textile institutes and manufacturers.

The commercial section for the manufacture of purdahs had another very successful year. An outstanding achievement was the successful introduction of Indian cotton durries in the English market. Orders were booked by the London Agent for 500 durries, which was far beyond the manufacturing capacity of the Institute, and there was some delay before arrangements could be made with the Obra Carpet Weavers' Society for their manufacture. The Department participated as usual in the British Industries Fair. The Bihar and Orissa stand was well patronized and trial orders were placed by two firms in America, one in Ireland and several small firms in England. There were enquiries for Bhagalpur silks at the fair and the London Agent is optimistic regarding the possibility of creating a demand for them in England.

The Department of Industries had also done a great deal to develop eri-culture as a cottage industry, but the abolition of the entire district staff as a measure of retrenchment has resulted in

Bihar and Orissa Stall at the British Industries Fair in London.

a decline in the industry. In Orissa, where this cottage industry is of special importance, supplies of seed eggs were made through the honorary organiser for eri and some of the central co-operative banks. There is a need for a permanent seed supply station, and in its absence great difficulty was found in making an adequate supply of seed eggs to rearers. As in the last two years a temporary seed station was maintained for a few months at Ramganj in Purnea.

Retrenchment has also affected the activities of the pisciculture section, and the existing staff is inadequate for systematic propaganda and demonstration. However, though progress is slow, interest is being steadily stimulated and there are signs that persons belonging to the middle classes are beginning to take interest. The fry is supplied from three centres—Patna, Cuttack and Sambalpur. Conditions in Orissa were not very favourable during the year owing to the heavy rains and floods and there was a decrease in the number of fry supplied from the Orissa centres, but the fry supplied from the Patna centre rose from 189,500 to 232,000. Most of the tanks for which fry were obtained from the Department were inspected and their owners advised as to the special steps which were necessary for success. There was a welcome revival in the amount of fish exported from the province, the total figure rising from 69,980 maunds to 92,918 maunds.

Another section of the Department deals with commercial and industrial intelligence. This section answered a large number of enquiries from abroad, from the Government of India, and from private individuals and firms in this province. Technical advice was given in a number of cases. A technical reference library is maintained and is open to the public. It contains about 1,800 books dealing with a wide range of industrial and commercial subjects. The popularity of this library is on the increase, as it becomes more known, and this year it was visited by 817 persons in comparison with 546 in the previous year.

Technical education.

The premier technical college of the province is the Bihar College of Engineering. There are eleven other technical institutions run by Government and ten which receive grants in aid. The full course for the degree of Bachelor of Civil Engineering is taken only at the Bihar College of Engineering, but a subordinate course in Civil Engineering is also taught at the Orissa School of Engineering. Industrial Diploma classes are run at the Bihar College of Engineering, the Orissa School of Engineering, the Tirhut Technical

Institute and the Ranchi Technical School. The general depression and unemployment among passed students affected the number of applications for admission to the Civil Engineering degree and subordinate classes of the Bihar College of Engineering and the Orissa School of Engineering. The Industrial Diploma classes, however, continued to attract a large number of students. At the close of the year the total number of students in attendance at all institutions had fallen from 1,878 to 1,866. The total expenditure incurred in technical and industrial institutions was Rs. 5,11 compared with Rs. 5,20 in the previous year. The Cottage Industries Institute continued to attract far more applicants than could be admitted. In January 1934 there were 537 applicants, of whom only 78 were admitted. 58 students admitted in the previous year appeared at the examination and 53 passed. 36 of these passed students are reported to have secured employment in the trades for which they were trained. The trades taught include weaving, dyeing, knitting, carpet and durrie manufacture and toy-making. During the practical classes production is directed along profitable lines and the students in the various sections produced during the year work worth Rs. 11,921. The Government Silk Institute at Bhagalpur continued to train students for the silk industry and also carried on research work. 19 students passed out in 1933 and of these six found employment in factories and six have started their own dyeing and weaving businesses. The Wool Weaving Institute, Gaya, and the Weaving School, Bihar, continued to do valuable work. The Department awarded eleven scholarships and stipends ranging from Rs. 15 to Rs. 50 a month, for training outside the province in various industrial and technical subjects for which adequate facilities do not exist within the province. In view of the rapid expansion of the sugar industry one of the two scholarships usually tenable at the Indian School of Mines, Dhanbad, was transferred to the Harcourt Butler Technological Institute, Cawnpore, and awarded to a student for training in sugar technology.

Electricity.

The only new town supplied with electricity during the year was Arrah. Applications for licences for supplying electricity to the towns of Ranchi, Deoghar, Purulia, Dhanbad-Jharia, and Dishergarh were under consideration at the close of the year. The total number of towns supplied with electricity is now nine. Consumption is on the increase everywhere, but at Bhagalpur, Cuttack and Chapra the undertakings are working at a loss and at Giridih the undertaking is on the borders of insolvency.

Limited liability companies.

The number of limited liability companies in operation at the end of the year was 110, an increase of 10 over the preceding year. The total paid-up capital was Rs. 157 lakhs as compared with Rs. 127 lakhs in the previous year. Among the new companies registered during the year was the Bihar United Insurance Limited, Patna, with object of carrying an insurance business of all kinds including life insurance. There are already two other insurance companies incorporated and working in this province, the Bihar National Insurance Company Limited and the Great Asoka Assurance Company Limited.

Maritime trade.

The depression has hit the port of Puri badly, and during the year under report no vessel entered into or cleared from that port. The value of imports through the port of Chandbali in Balasore fell from Rs. 9,50 to Rs. 7,67 and the value of exports fell from Rs. 4,79 to Rs. 3,38. Imports are confined to the coasting trade between Calcutta and Chandbali and consisted mainly in coal, vegetables, cotton goods, gunny bags, matches, sugar and salt. The chief articles of export were rice, dried fish and jute. The number of passengers arriving at, and departing by sea from, Chandbali was 9,283 and 9,328 respectively compared with 5,175 and 4,265 in the previous year. This large increase is due to the improvement of the S.S. Chandbali, the steamer of the Chandbali Steamer Service Company Limited. This vessel has now adequate space for passenger accommodation and people are finding this route cheaper and more pleasant than travelling by rail.

APPENDIX I.

A short summary of the Administration of Bihar and Orissa in 1934.

Changes in Administration.

On the 17th January 1934 the Hon'ble Raja Sir Rajendra Narayan Bhanja Deo, Kt., O.B.E., of Kanika, resigned his office as Member of the Executive Council and was succeeded by the Hon'ble Babu Nirsu Narayan Sinha. On the 12th October 1934 His Excellency Sir James David Sifton, K.C.S.I., K.C.I.E., I.C.S., proceeded on leave for four months, and the Hon'ble Mr. J. T. Whitty, C.S.I., C.I.E., I.C.S., assumed charge as Acting Governor. In his place the Hon'ble Mr. J. A. Hubback, C.S.I., I.C.S., was appointed temporarily to be a Member of the Executive Council. On the transferred side the Hon'ble Sir Ganesh Datta Singh, Kt., continued to hold charge of the portfolio of Local Self-Government, while the place of the late Khan Bahadur Saiyid Muhammad Hussain was taken by the Hon'ble Mr. Saiyid Abdul Aziz, who was appointed Minister in charge of the Education Department on the 15th January.

Visit of His Excellency the Viceroy and Tours of the Governor.,

His Excellency Sir James Sifton made numerous visits to the districts devastated by the earthquake. Three days after the earthquake he flew over North Bihar by aeroplane and dropped messages at various points. In February he visited Monghyr, Jamalpur and Bhagalpur and inspected the relief work in progress. On the 7th March His Excellency the Viceroy arrived in Patna by air and on the following day he visited Muzaffarpur and the surrounding country in company with His Excellency the Governor. He left Patna by air on the 9th March. During the same month His Excellency the Governor made an extensive tour of the earthquake-affected districts of North Bihar. He visited Chapra, Motihari, Bettiah, Darbhanga, Muzaffarpur and villages in their vicinity. At the end of September His Excellency made a further extensive tour of the affected districts in the course of which he visited Jamalpur, Monghyr, Madhubani, Darbhanga, Motihari, Muzaffarpur and Arrah. At Madhubani and Motihari he studied the new sites proposed for Government buildings and he inspected the road-widening scheme at Muzaffarpur.

The Hon'ble Mr. J. T. Whitty, C.S.I., C.I.E., I.C.S., assumed charge as Acting Governor on the 12th October in Ranchi and before returning to Patna he visited Jhalda, where he met representatives of the Armenian Shellac manufacturing community and Purulia, where he received addresses from the local bodies. At the end of November he visited Purnea, Madhipura and Supaul.

Earthquake.

The account in Chapter II covers the whole of the year 1934.

Political events.

The year 1933 had closed with a general lull in political activity throughout India. The Congress party was paralysed by its programme of civil disobedience and within the party there was a strong section daily gaining strength, in favour of the open abandonment of a policy, which had in fact failed. For the moment Mr. Gandhi and Pandit Jawaharlal Nehru were successful in opposing any such confession of failure. Mr. Gandhi turned his attention from political matters to the prosecution of the movement for the uplift of the depressed classes and embarked on an all-India tour, commencing in the Central Provinces.

The disaster of January 15 had the effect of diverting attention still further from political questions, and within the province the earthquake remained the only topic of interest for many months. In the face of the overwhelming problems of relief, political differences sank into the background. Babu Rajendra Prasad, the Congress leader, who had just been released from jail, was appointed President of the Bihar Central Relief Committee and on the 22nd January, he wrote to the local Government offering to assist and co-operate with other organisations, official and non-official, working for relief. This offer was welcomed by Government in the same spirit, and was the prelude to a considerable improvement in feeling in local circles. Throughout the relief operations, leading men of all shades of opinion worked harmoniously with Government and each other. There was little disposition to make political capital out of the situation and there was a gratifying absence of a spirit of carping criticism. Pandit Jawaharlal Nehru delivered an attack on the local Government after a flying visit to the province, but his accusations met with no response among the local leaders of political opinion. Mr. Gandhi, absorbed with the harijan movement, gave a shock to the more intelligent among his supporters by announcing his belief that the earthquake was due to the evil of untouchability. Mr. Gandhi came to the province in the second week in March and presided over the meeting of the All-India Board appointed to

deal with the Bihar Central Relief Fund. A number of resolutions were passed including one in which " respectful co-operation " was offered to Government in the work of relief. The Relief Commissioner met the Committee by invitation and explained the action which was being taken by the local Government. Subsequently throughout the summer there were frequent meetings between the Relief Commissioner and Babu Rajendra Prasad to discuss problems arising out of the work of reconstruction.

A change came over the political situation in April. A conference of Congress leaders at Delhi announced the revival of the All-India Swaraj Party, within the Congress, to enable Congressmen who were not offering individual civil disobedience to seek election to the Councils. This announcement received the approbation of Mr. Gandhi, a striking reversal of his previous attitude. On 7th April Mr. Gandhi issued a remarkable statement suspending civil disobedience for all Congressmen except himself. There followed a period of confusion, and manœuvring by the various parties within the Congress. The Swaraj Party was formally constituted at a Conference held at Ranchi at the beginning of May, but was shortly afterwards reabsorbed in the Congress when at the meeting of the All-India Congress Committee at Patna civil disobedience was suspended and the policy of Council entry was adopted. A Parliamentary Board was formed to control elections and guide work inside the legislature, subject in matters of policy to the general control of the All-India Congress Committee. The Congress was now placed in a quandary by the problem of defining its attitude towards the Communal Award. The Hindu Mahasabha clamoured for its unequivocal rejection; yet any proposal to reject or modify the Award would have meant the loss of almost all the Muslim adherents of the Congress, who were few in number but of considerable political importance. Eventually the Congress decided not to forego the undoubted advantage which an irresponsible opposition can obtain by refusing to define its policy on important matters, on which there is a difference of opinion among its members. Pandit Malaviya and Mr. Aney resigned from the Parliamentary Board on this question and decided to form a Nationalist Party to work with the Congress except so far as the Award was concerned.

From June onwards interest centred on the general election to the Assembly and there was a gradual increase in political activity. In Bihar and Orissa, Congress was, as usual, the only political party with any real organisation and, in spite of dissensions among their members, it was apparent within a short time that

their preparations were likely to be crowned with success. The Moderates and Independents were disunited and apathetic, and showed little aptitude for political organisation and electioneering tactics. Nevertheless it was not anticipated that the Congress would sweep the Board in quite so drastic a manner as actually happened. The eight Non-Muhammadan seats in the province were all captured by Congressmen by large majorities. Their successes, repeated in other parts of India, were a tribute to the weakness of the opposition rather than the strength of the Congress. for that body was considerably weakened by internal disputes between orthodox Congressmen, Nationalists and Socialists.

In the middle of September Mr. Gandhi dropped a bomb-shell by announcing his impending retirement from the Congress organisations, although he did not take the final step until after the session of the Congress held in Bombay in November. The session proved to be yet another triumph for Mr. Gandhi and a proposal for the reorganisation of the Congress Executive, designed to make it a less unwieldy and more businesslike body, was carried largely owing to his personal influence. The exact significance of his retirement is a matter for conjecture, but it seems probable that it was due less to the differences of opinion which had grown up between himself and many Congressmen, than to the desire to devote himself to the establishment of the Village Industries Association which was to extend his influence among the rural masses and secure their allegiance to him. The Village Industries Association is avowedly non-political body, but there is little doubt that it is part of a programme to strengthen the Congress throughout the country. Mr. Gandhi is certainly not yet a negligible political force.

The publication of the Joint Select Committee's Report was met with the usual flood of denunciation from the Press. Criticism, as might be expected, was concentrated on the safeguards and there was a storm of protest over the omission of any reference to Dominion Status as the goal of constitutional advances.

Local non-official opinion is almost unanimously critical, but there are good reasons for supposing that these onslaughts do not indicate a widespread determination to wreck the reforms. The general body of moderate opinion in the province is thoroughly tired of constant agitation, and it is certain that any attempt to start another mass movement against Government would meet with little response. There is widespread recognition of the fact that the negative Congress doctrines of the last few years have done the country serious harm, and a corresponding desire to take

advantage of the many political advantages which the new constitution will bring with it. The Congress, itself, is in a difficult position and has not yet made any formal pronouncement on the Report. It seems improbable that having once decided to enter the legislatures it will adopt a purely obstructive policy.

Relations between Hindus and Muhammadans.

For the moment the shock of the earthquake stilled the voice of communal discord, but it was not long before it was raised again even in districts where for weeks after 15th January the villagers had been too paralysed with fear to move hand or foot to alleviate their personal discomfort. In February at Belsand in Sitamarhi subdivision, where the earthquake had been particularly severe, 500 to 600 Hindus set fire to the houses of some Muhammadan butchers who were reported to have killed and eaten a cow, and assaulted the daffadar and two chaukidars. Throughout the year the underlying tension between the two communities caused Government and its officials the greatest anxiety and it was only owing to unremitting care and forethought that major outbreaks were avoided at the great religious festivals of the two communities. There seems little prospect that this tension will lessen until the problem of the Communal Award is finally settled. The educated Muhammadan with an interest in political affairs is aware of the determination of Congress and the Nationalists to upset the Award at the earliest opportunity, and there is growing uneasiness at the prospect of Hindu domination. This fear has now communicated itself to the masses and is no doubt in a large measure responsible for the host of minor clashes which occurred during the year. The Holi, Bakr-Id, Muharram and Dasahara festivals passed off without serious incident, though an unusually large crop of minor clashes bore witness to the strained relations between the two communities.

In certain villages in the Sadr subdivision of Purnea communal tension was so acute that it was found necessary in July to employ a force of additional police at the expense of the inhabitants for a period of one year. There had been grave danger of a collision between the two communities for more than a year and at the Bakr-Id and the Muharram in 1934 both parties showed themselves bent on trouble. A disquieting feature was that both sides recruited help from outside. Only very elaborate precautions prevented a serious collision.

Crime.

At the beginning of the year, it might have been confidently anticipated that the disorganisation produced by the earthquake and the preoccupation of the police with relief work would have led to a large increase in

the amount of serious crime. The contrary, however, proved to be the case and there was a great and continued improvement in all classes of serious crime against property. The figures for dacoity give particular cause for satisfaction. In the first quarter of the year 92 cases were reported against a triennial average of 145, in the second 119 cases were reported against a triennial average of 145 and in the third 78 cases were reported against a triennial average of 94. This improvement is to some extent accounted for by the absence of political agitation and to the fact that for some time after the earthquake the criminal classes were too frightened to commit crime, while subsequently economic conditions improved, owing to work arising out of the earthquake. But it would be ungenerous to minimise the credit due to the police who are now reaping the harvest of organised and sustained action during the last few years. The use of special anti-dacoity forces of armed police have proved so successful in Purnea, Bhagalpur and Saran that Government are contemplating a permanent force for this purpose since the experience of recent years has shown that when dacoity is suppressed by special measures in the district it tends to break out in others. Two cases of good work by the police merit special mention. On the 14th January 1934, the Deputy Superintendent of Police, Siwan, mobilized a small police force and picketed the house of one Nandan Missir where he had received information that a dacoity was contemplated. Some 25 to 30 dacoits armed with deadly weapons arrived and after a fight four of them were captured. This resulted in the detection of a gang of desperate and dangerous criminals of Saran and Gorakhpur district and eventually fifteen of them were sentenced to varying terms of imprisonment. On the 18th May 1934 the Superintendent of Police, Champaran, surprised a gang of Terai criminals in the act of committing a dacoity at Chainpur on the Nepal border. After a fight six dacoits were captured, one of whom died subsequently of gun-shot injuries.

Labour.

The year was notably free from industrial disputes. Apart from a number of short-lived strikes, which do not merit detailed mention, relations between employers and workers were good.

In Jamshedpur, Mangal Singh, an ex-lieutenant of Manek Homi, who had developed into an extreme communist, actively pursued an attempt to capture the Labour Federation and to convert it to extreme communist doctrines. His propaganda eventually became too dangerous to be ignored, and on the 20th September 1934 orders were issued under section 2 of the Bihar and Orissa

Public Safety Act, 1933, externing him and his chief lieutenant, Phanindra Bhusan Datta, from the province. The Federation fell into a moribund condition after the externment of Mangal Singh, but at the close of the year there were signs of an attempt to revive it in preparation for the release of Manek Homi from jail.

Floods.

Before the monsoon broke, it had been freely prophesied that there would be serious floods in North Bihar owing to the alteration of levels caused by the earthquake and the choking of river beds with earthquake sand. Elaborate precautions were taken and boats were stationed at strategic points. Fortunately the monsoon broke with a moderate fall, which served to scour out the channels of the rivers. Between the 15th and 20th July there was severe flooding along the Bur Gandak and the Bagmati rivers in Champaran and north Muzaffarpur and considerable damage was done to the standing crops, but the flood water slowly receded and, although in an area north of Muzaffarpur the water remained standing for an abnormally long time, in general the fears expressed as to the blocking of the drainage channels were not realised. The province was not, however, to escape from more serious floods, although these were quite unconnected with the earthquake. Their severity arose from the coincidence of abnormal floods in the Ganges and its tributaries, the Son and the Gogra. The worst damage was done in the districts of Shahabad and Saran, but simultaneously there was serious flooding in the riparian areas of eight other districts, Patna, Gaya, Muzaffarpur, Darbhanga, Monghyr, Bhagalpur, Purnea and the Santal Parganas. The course of the floods was briefly as follows. On the 23rd August the Son rose with great rapidity and on the morning of the 24th it had reached the record height of 17′ 10″ at Dehri, attained in 1923. Although the flood subsided rapidly, it destroyed a large number of houses on the west bank of the Son and almost the entire *bhadai* crop in the West Son area. This flood also affected Patna and Gaya districts. The Turkaul embankment, which was constructed after the 1923 floods, withstood the force of the flood and Arrah town and its vicinity was consequently little affected by water from the Son. Flooding from the Ganges began on the morning of the 24th August and by the afternoon a large area of country north and north-west of Arrah and a considerable portion of the town were under water. This flood was prolonged for several days. The *bhadai* crop was largely destroyed and a number of villages on the bank of the Ganges were seriously damaged. Immediate arrangements were made for the provision of boats and for the distribution of food, fodder and other supplies from Buxar, Ballia and Benares.

In Saran the Gogra reached danger level on the 23rd evening and the water continued rising until the 25th. Part of Chapra town was 3 to 4 feet under water until the 26th. The most serious damage was done in the area south of the railway embankment between Goldenganj and Sonepur, where almost all the mud houses collapsed and very serious damage was done to the standing crops. Serious damage was done to the railway which was breached in eight places and one of the breaches was reported to be 450 feet wide.

The floods followed a similar course in the other affected districts, though in the districts further down the Ganges the flooding was for the most part confined to the diara tracts. Although the situation was complicated by floods in so many districts at the same time, there was comparatively little loss of life and cattle owing to the prompt and effective measures taken by the local officers to evacuate the population of the diara tracts. In Bhagalpur and Monghyr the rescue work was on a very large scale, over 6,000 people and 8,000 cattle being removed to places of safety by steamer and by other measures. Arrangements were made in these towns, largely as a result of private charity and enterprise, for the feeding and shelter of large numbers of refugees. The floods left behind them heavy deposits of fertile silt which it is hoped will result in bumper crops during the next few years.

The economic situation.

A description has already been given of the effect of the earthquake on agricultural land in Bihar. Standing crops were not damaged to any large extent; the damage done by sand deposits was not so great as was at one time feared and only some 249 square miles were seriously affected by deposits exceeding one foot; and the problem of disposing of the sugarcane crop was solved without serious loss to the growers. During the months that followed the earthquake the amount of money in circulation was enormously increased by distribution of loans and grants (the figures have been given already) in connection with the relief operations, and by the exceptional activity in the building trade. This increase in rural credit has been of considerable assistance to the cultivators throughout this area in resisting the effects of the long-continued depression in the prices of all agricultural products. The floods along the Bur Gandak and Bagmati rivers in July and along the Ganges, Son and Gogra rivers in August did considerable damage to the standing crops and house property but the immediate effects were offset by the distribution of agriculturists' loans amounting to nearly six lakhs of rupees and of seeds worth half a lakh, and it is anticipated

that the deposit of fertile silt from the Ganges floods will be of immense value to the crops during the next few years.

For the latter part of the year weather conditions were generally favourable and rain came at opportune moments. The *bhadai* crop was generally fair to good. The winter rice crop was generally good except in Singhbhum. The sugarcane crop was also good. The condition factors of these crops are put at 90, 99 and 93 per cent of the past ten years' average. The price of common rice was distinctly higher than in the previous year and at the end of December it was selling at 13.50 seers a rupee as compared with 15.04 seers in the corresponding week last year. The price of lac was nearly double what it was in the previous year. It is believed that speculation and artificial manipulation of the market at home are responsible for the high price of lac, and the situation is therefore unreliable, but for the moment the cultivator in Chota Nagpur is reaping considerable benefit.

Ignoring factors of purely temporary effect, it cannot be said that there is any marked change in the economic situation since last year but it is satisfactory that there has been no further deterioration, and the outlook is distinctly more hopeful. The agriculturists continued to show notable powers of resistance to the effects of the depression. During the year the local Government carried out an enquiry into the condition of the agricultural population through the District Officers, and they are satisfied that there has not been any marked increase in the transference of land from cultivators to money-lenders, or in the practice of taking over crops by money-lenders. Money-lenders find it difficult to collect their interest, while in Government estates and in private estates it is difficult to collect rents, but it is believed that there is no marked increase in indebtedness through the increasing of new debts. Money-lenders hesitate to lend to cultivators under present conditions. Cultivators have had to readjust their standards of living and to give up some of the luxuries, including litigation, to which they had become accustomed during the years of high prices. There are at last signs that the bottom of the depression has been reached and passed.

Finance.

The local Government had approved the budget figures for the year 1934-35 barely two hours before the earthquake completely altered the financial position of the province both on the revenue and the expenditure side. Government adopted the only course possible and the budget was introduced and passed by the Legislative Council as it stood without regard to the effect of the earthquake. The year 1933-34

had opened with a balance of Rs. 56,69 and the local Government had budgeted for a net withdrawal of 14,66 lakhs from their balance during the year. Actually up to the time of the earthquake, expenditure was not as great as anticipated, partly owing to the 5 per cent cut in salaries and partly owing to the non-expenditure of the provision for a general election. Immediately before the earthquake, it was anticipated that the year would close with a balance of Rs. 47,16 involving a reduction of Rs. 9,60 in the ordinary balance of the province during the year. For the year 1934-35 the local Government budgeted for a further withdrawal from the balance of 22 lakhs 96 thousand rupees. This estimate, however, was framed before the decision to continue the five per cent cut in salaries was made known. These figures representing the normal financial position of the province require some comment before the abnormal financial effects of the earthquake are discussed.

The last few years have been years of rigid economy and retrenchment, yet the ordinary provincial balance, which stood at 1,07 lakhs at the beginning of the year 1930, has now almost completely disappeared and the budget for the year 1934-35 anticipates a deficit for the first time. The position was summed up succinctly by the Hon'ble Finance Member of Government in the March Session of Council when he stated that the minimum normal expenditure of the province is 5,24 lakhs while the maximum revenue under present conditions is 5,10 lakhs. The province is faced with a normal annual deficit of 14 lakhs; in fact the position is far worse than this, for many of the economies of the last few years cannot be repeated indefinitely.

Turning to the financial consequences of the earthquake it was at once recognised that the province was quite unable to cope with the disaster from its own resources and that the Government of India would have to come to its assistance. The Hon'ble Finance Member of the Government of India announced the details of the financial assistance to be given in the course of his speech introducing the budget for 1934-35. Under these arrangements the Government of India agreed to find the full cost of replacing damage done to the property of the local bodies, and of schools, hospitals and other institutions receiving aid from the local bodies or from Government. In addition they undertook to provide the funds for the running of local bodies whose source of income had been damaged, until normal conditions returned. The Government of India also undertook to provide half the cost of replacing the damage done to the property of the local Government. The Government of India also met the cost of the special sugarcane measures.

Estimates are not yet sufficiently advanced to justify any accurate prophecy as to the total cost of the earthquake. It is, therefore, advisable to give figures as regards its effects in 1933-34 only. Revenue was not as severely affected, as was originally anticipated; receipts from Land Revenue and Stamps decreased by about Rs. 6 lakhs but this decrease was to some extent offset by an increase in Excise revenue resulting from the improvement in the economic condition of the labouring classes owing to reconstruction work.

Earthquake expenditure in 1933-34 including loans expenditure amounted to Rs. 19,05,000. This expenditure can be divided into four classes :—

	Rs.
First—Grants to local bodies, etc., the whole cost of which was borne by the Government of India	7,93,000
Secondly—Reconstruction expenditure half of which (Rs. 1,77,000) was borne by the Government of India	3,54,000
Thirdly—Extra cost in the administrative departments of Government including Reconstruction Department and minor items of expenditure such as replacement of furniture, etc., the whole cost of which was borne by the local Government and was charged to the revenue account	1,27,000
Fourthly—Loans made by the local Government to private persons for sand clearance and to assist zamindars to re-establish their agricultural business, etc.	6,31,000

The local Government met the half share of their reconstruction expenditure in 1933-34 from revenue but a loan will be obtained from the Provincial Loans Fund for this item in 1934-35. They took a loan of Rs. 5,60,000 to finance part of their loans expenditure.

As a result of these operations the actual opening balance on 1st April 1934 stood at Rs. 45,35 lakhs.

Legislative Council.

The Hon'ble Babu Rajandhari Sinha, who had been elected on the 15th December 1933, continued to be the President, and Rai Bahadur Lakshmidhar Mahanti the Deputy President of the Council throughout the year.

Two sessions of the Council were held, at Patna in February and March and at Ranchi in September 1934.

The usual programme for the winter session was completely disorganised by the earthquake. Only the most urgent items of business were taken up and the rest was postponed until the Ranchi session.

In all, the Council met on twenty-one days, of which five were devoted to the presentation and general discussion of the budget and the voting of demands and six to the transaction of non-official business.

Two emergency Bills were passed by the Council during the winter session—the Bihar and Orissa Natural Calamities Loans Bill and the Bihar and Orissa Municipal (Emergency Provisions) Bill. The former was designed primarily to provide a simple method of granting loans to the owners of holdings damaged and destroyed by the earthquake and the latter to enable Government to assume complete or partial control of municipal affairs in cases where, as a result of the earthquake, the commissioners were unable, through no fault of their own, to discharge their duties satisfactorily.

At the September session in addition to bills to remove defects in the Indian Forest Act, 1927, the Bihar and Orissa Motor Vehicles Taxation Act, the Patna University Act and the Bihar and Orissa Village Administration Act, three Bills of major importance were passed.

The Bihar Tenancy (Amendment) Bill, 1933, was passed by the Council on the 11th September 1934. It amends the Bengal Tenancy Act, 1885, in respect of transferability of holdings and of rights relating to the building of houses, the digging of wells or tanks and the planting of trees and other minor matters. The Bill, which was the successor of a long time of infructuous Bills designed to amend the Bengal Tenancy Act, was introduced on the 23rd March 1933 and referred to a Select Committee. Their report was presented on the 10th September 1934 and the Bill was passed on the following day.

The Darbhanga Improvement Bill, 1934, was introduced to take advantage of a generous offer of the Maharajadhiraja of Darbhanga to finance the formation of an Improvement Trust for the reconstruction of the shattered town of Darbhanga. It was referred to a Select Committee and passed by the Council on the 18th September 1934.

The Bihar and Orissa Cess (Amendment) Bill, 1933, was passed on the 18th September 1934. The Act provides that a person

applying for revaluation of the cess is, subject to certain conditions, liable to pay expenses incurred in making the revaluation.

In addition, the following Bills were introduced by Government during the September session of the Council and referred to Select Committees. The Bihar and Orissa Municipal (Amendment) Bill, 1934, making provision for the compulsory notification of infectious diseases, the Bihar and Orissa Nurses Registration Bill, 1934, making provision for the registration and better training of nurses, health visitors, midwives and *dais* and the Bihar and Orissa Co-operative Scoieties Bill, 1934, seeking to replace the All-India Co-operative Societies Act of 1912 by a measure designed to meet provincial conditions and to remedy the defects which experience has shown to exist in the All-India Act.

The Bihar and Orissa Zamindar's Protection Bill, 1934, designed to protect zamindars from indebtedness was introduced by a private member and circulated for elicIting opinion thereon.

Three hundred and forty-seven questions and five hundred and ninety-six supplementary questions were asked during the sessions of 1934 as compared with three hundred and fifty-eight and six hundred and twenty-four, respectively, during 1933. Fifty-six resolutions were tabled for discussion but only ten were actually moved. Of these two (including one official) resolutions were carried, three were negatived and five were withdrawn. A resolution from the Government bench recommending a grant not exceeding Rs. 2 lakhs to the Muzaffarpur municipality for a road-widening scheme was adopted without a division.

A resolution protesting against the decision of the Government of India to transfer the Imperial Agricultural Research Institute from Pusa to Delhi was unanimously adopted by the Council in an amended form recommending that, if the transfer took place, a branch or a sub-station of the Institute should be maintained at Pusa.

A resolution moving the appointment of a committee to report on the desirability of abolishing the outstill system for country liquor was negatived by fifty-three votes to eighteen. The mover of the motion and his supporters maintained that the system had led to a great increase in drunkenness and that the liquor supplied from the outstill was more injurious than under the distillery system. The Government speaker in opposing denied that the system had led to an increase in intemperance although by driving out illicit distillation it had substituted open for secret drinking in some places. It had resulted in a great improvement in the Excise revenue in contrast with Bengal where the revenue was still contracting.

Finally one year's experience was insufficient to prove a fair test of the system. As stated above, the policy of Government was strongly endorsed.

The term of office of the Legislative Council was again extended for a further period of one year with effect from the 19th January 1935 in view of the impending constitutional changes and the improbability of the new Council running its full course.

District boards and municipalities.

In the general paragraph dealing with the earthquake a brief account has already been given of the damage suffered by the local bodies in the Tirhut, Patna and Bhagalpur divisions and of the generous offer of the Government of India to meet the cost of restoring them to their normal condition. In the area north of the Ganges the district boards had suffered enormous damage not only through the destruction of their offices, dispensaries, schools, inspection bungalows and other buildings but also through extensive damage to their roads, embankments and bridges. South of the Ganges damage was confined to buildings and a few bridges. The problem of the municipalities was rather different and in some respect worse. The wholesale destruction of houses deprived them of a large portion of their income, for it was impossible to collect a large portion of the tax on buildings. Moreover in the large towns heavy expenditure had to be undertaken at once in clearing the debris and restoring conservancy arrangements.

The assistance given to the local bodies has been of three kinds :—

(*a*) Financial.

(*b*) Technical advice.

(*c*) Legislation.

The total grants made to local bodies so far in connection with the earthquake amount to Rs. 29,51,000. Further requirements in 1934-35 are estimated at Rs. 18 lakhs and in 1935-36 at Rs. 48 lakhs.

For supervision of the repair and construction work of district boards in Tirhut a separate post of Inspector of Local Works has been created and filled by an officer of the rank of Superintending Engineer. He has a staff consisting of a Personal Assistant and two experienced Assistant Engineers. The municipalities at Monghyr, Muzaffarpur, Darbhanga and Motihari have the assistance of the special " Town Engineers " who are under the control of the Relief Engineer. In other municipalities the entertainment of temporary engineers has been sanctioned.

The Bihar and Orissa Municipal Act was not suited to the altogether exceptional circumstances created by the earthquake. To deal with the problem of remission of taxation necessitated by the destruction of buildings, the Bihar and Orissa Municipal (Emergency Provisions) Act was passed by the Legislative Council in February 1934. At the September session a Bill to constitute an Improvement Trust for Darbhanga was passed. This scheme for the improvement of Darbhanga town was made possible by a generous offer of the Maharajadhiraja Sir Kameshwar Singh of Darbhanga to make a grant of Rs. 5 lakhs and to lend up to Rs. 9 lakhs to the Improvement Trust. The Legislative Council also signified its approval of a town-planning scheme in Monghyr, and a road-widening scheme at Muzaffarpur.

Other important events of the year include the supersession of the Hajipur municipality and the partial supersession of the Bihar, Jhalda and Ranchi municipalities under the new section 386A of the Bihar and Orissa Municipal Act. The supersession of the Hajipur municipality was forced upon Government by consistently bad administration, neglect of rules and wilful failure to carry out the advice of Government; the partial supersession of the Bihar, Jhalda and Ranchi municipalities was the result of the deplorable state of their collections.

At the September session of the Council two Bills were passed which require brief mention. The Bihar and Orissa Motor Vehicles Taxation (Amendment) Act, 1934, provides for a reduction in the rates of tax on motor bicycles and tricycles, and the Bihar and Orissa Village Administration (Amendment) Act removes certain minor defects in the Act.

Education.

A determined effort is being made to overcome the evil of stagnation in primary schools and the waste which occurs through pupils spending some years at school without progressing far enough to ensure that literacy is permanent. Government have decided to adopt the new syllabus outlined by the Primary Education Committee for lower and upper primary schools. The new course to be introduced in January 1935 will cover six years in all instead of five, and will include a lower primary course of four years instead of three. Experience has shown that four years is the minimum period of schooling required to establish literacy. Another factor giving ground for hope of an improvement is the revival of the post of Special Officer for primary and girls' education which was kept in abeyance at the time of retrenchment.

The earthquake occasioned widespread damage to school and college buildings in Bihar and caused great inconvenience and dislocation of work, though normal working was established fairly quickly in the majority of cases. The annual Matriculation, Intermediate and Degree Examinations of Patna University had to be postponed. Fortunately though the material damage was so great, there was little loss of life in colleges or schools. As an exception, the deaths of 35 school children were reported from Monghyr and in one school alone nearly 20 children were overwhelmed with their teacher. Large allotments have now been sanctioned by Government for repairs to the school buildings damaged by the earthquake and for the construction of temporary sheds. An allotment of Rs. 10,000 from the Viceroy's Earthquake Relief Fund was placed at the disposal of the Director for relief to students reading in schools and colleges severely affected by the earthquake. The Motihari Zila School, one of the buildings destroyed, is to be reconstructed on a new site at Gopalpur.

At the September sitting of the Legislative Council, the Patna University Amendment Bill of 1934 was passed. Among other small changes in the Act, it gives the Syndicate power to co-opt Fellows to fill temporary vacancies in its own number. The Chair for Maithili, founded with funds provided by Maharajadhiraja Sir Kameshwar Singh of Darbhanga, has been filled by the appointment of Dr. S. Jha as an Assistant Professor of Maithili at Patna College. At the Greer Bhumihar Brahman College at Muzaffarpur medical arrangements, similar to those in force in the colleges at Patna and Cuttack, have been sanctioned and the college will now have a whole-time doctor. Intermediate Arts classes in Urdu as a principal subject were opened at this college in July.

Medical relief.

Only one new dispensary was opened during the year, making a total of 687 hospitals and dispensaries in the province. The year would in any case have been one in which little advance would have been possible owing to shortage of funds, and the earthquake definitely put out of count any schemes of improvement that might have been contemplated.

The hospitals which suffered most severely on January 15th were the Patna Medical College Hospital, the Darbhanga Medical School Hospital, and the hospitals at Motihari, Bettiah, Muzaffarpur, Sitamarhi, Monghyr and Chapra. At Darbhanga, Motihari and Sitamarhi the damage amounted practically to destruction while the other hospitals were very severely damaged. The damage has now to a large extent been repaired, and even where complete

reconstruction is necessary the buildings have either been rebuilt or steps have been taken to have them rebuilt as soon as possible.

The Medical College at Patna and the Medical Schools at Darbhanga and Cuttack managed to carry on their work satisfactorily although the damage at Patna and Darbhanga was extensive. At Patna teaching was suspended for over a month on account of the closure of the laboratories and the hospital. Eventually the University Examination was postponed for a month and the college vacation was reduced by half a month.

The students of both institutions behaved admirably and the greatest credit is due to them for the voluntary assistance they gave in attending the injured.

During the year Inspectors deputed by the Indian Medical Council examined the course of instruction, both theoretical and practical, at the Patna Medical College and scrutinised the Final M.B., B.S. examination held in September 1934 with a view to deciding whether the Patna University teaching stands high enough to merit inclusion in the schedule of recognised Universities for medical study.

The Itki Sanatorium again had a very good year and the average daily attendance of patients rose from 44.4 in 1933 to 54.05. At the Radium Institute in Patna there was a slight decrease in the number of patients, owing to the fact that patients kept away from Patna owing to exaggerated reports of the damage done by the earthquake. In fact the Institute was only slightly damaged. The Pasteur Institute at Patna and the anti-rabic centre at Cuttack have continued to work satisfactorily. Altogether 4,216 patients attended the Patna Institute and 321 the Cuttack centre.

Child-welfare work in the province has been conducted by the Bihar and Orissa Maternity and Child Welfare Society. *Dais* have been trained at some of the Sadr hospitals and Maternity centres and during the year sums of Rs. 5,000 from the Victoria Memorial Scholarship Fund Committee and Rs. 300 from the grant at the disposal of the Inspector-General of Civil Hospitals have been distributed to hospitals undertaking this work.

The European Mental Hospital and the Indian Mental Hospital at Ranchi continued to afford treatment and relief to a large number of mental defectives. Lt.-Col. O. A. R. Berkeley-Hill, I.M.S., who has been Medical Superintendent of the former Institution since the year 1919, retired from Government service in December 1934.

Public health.

The death-rate showed an increase over the preceding year, the ratio per mille being 26.0 as compared with 22.1 in 1933. A widespread cholera epidemic was largely responsible for the increase, the deaths from this disease amounting to over sixty-two thousand as compared with twenty-one thousand in 1933. As usual, the districts of Orissa suffered, but the most badly-affected districts were Palamau. Champaran, Patna, Gaya and Ranchi. The epidemic reached its height in July and was subsiding by the middle of August, although there was a temporary recrudescence in Champaran and Ranchi. Greatly extended use was made of cholera bacteriophage and 53,624 phials of the phage were distributed to the affected areas. Three-quarters of a million doses of anti-cholera vaccine were also issued. The total number of deaths from small-pox fell from 41,901 in 1933 to 30,515. It is not improbable that the decline in the death-rate is due to the extensive vaccination and re-vaccination carried out during the previous year. Primary vaccination is now compulsory in ten districts and in all municipalities, and arrangements are being made to make it compulsory in three further districts.

The birth-rate for 1934 was 32.2 as compared with 35.7 in the previous year. One million two hundred thousand children were born, approximately two hundred and forty thousand more than the number of deaths. Considerably more than half the number of deaths are attributed to fever, a vague term covering a multitude of diseases.

Water-supply and drainage.

In addition to the repair of the water-supply and sanitary installations in Government buildings damaged by the earthquake, assistance was given to the Muzaffarpur and Monghyr municipalities in restoring normal supplies of water. The Public Health Circle also constructed the tube-wells which were driven in villages all over Tirhut, where sand had choked the wells. Altogether 1,227 of these wells were constructed at a cost of Rs. 54,075, of which Rs. 50,000 was provided by the Mayor of Calcutta Relief Fund. 903 of the wells proved successful and have been handed over to the various district boards for maintenance.

Important work is on hand in connection with waterworks at Patna, Muzaffarpur, Bhagalpur and Puri. At Bhagalpur progress in the construction of the Tarbana service reservoir has been held up by the more urgent demands of earthquake work. At Muzaffarpur considerable damage to the works was done by the earthquake and work in the Chandwara zone of the town has been postponed. However the reconstruction of the reservoir of the Kachi Sarai and

Prince of Wales Garden zones has been completed, and work on the distribution system of these zones is nearly finished. At Patna the four tube-wells for the Khajekallan headwork and one of the two to be constructed at the University headwork have been successfully completed, and work is in progress on the distribution system for the Khajekallan headwork. At Puri the waterworks scheme is nearly completed and it is hoped that a piped supply of water will be available for the more important parts of the town for the Car Festival in July 1935. Work has also been started on the sewerage system at Patna in connection with the drainage scheme. Detailed designs for the pumping station and sewage disposal works are under preparation, and it is hoped to start the work very shortly.

Jails.

The earthquake provided the Jails Department with a serious problem as the Central Jail at Bhagalpur, the juvenile jail at Monghyr, the district jails at Motihari, Muzaffarpur, Darbhanga, Purnea and the sub-jails at Barh, Dinapore, Sitamarhi, Bettiah and Madhubani were so badly damaged as to be unfit for the custody of prisoners. Temporary sheds were constructed to house the prisoners and the situation was also relieved by the release of 1,580 prisoners convicted of the less heinous form of crime who had served a substantial part of their sentences. The release was dictated partly by motives of humanity to enable the prisoners to look after their houses and families who might have been injured in the earthquake.

The decline of civil disobedience made it possible to abolish the sub-jail at Gulzarbagh and the Camp Jail at Patna from the 1st August and 1st September 1934, respectively.

Excise.

The changes introduced in the excise policy during the years 1932-33 and 1933-34 continued to operate favourably. Principal among these may be mentioned the settlement of excise shops under the auction system, instead of by the sliding scale system, the all-round reduction in the prices of country spirit, *ganja*, and opium, and the reintroduction of the outstill system in the hilly and jungly tracts. The present excise policy of Government is not dictated by a desire to increase their revenues by encouraging the labouring classes to drink; it is dictated by the determination to put the illicit distiller and smuggler out of business and to transfer their illegal profits to the revenues of the province. The new policy has actually resulted in a marked reduction in crime, and during 1934 the number of cases of illicit distillation detected was only 1,577 as compared with 2,165 in 1933. These figures are the more remarkable because a strong offensive has been undertaken against the illicit

distiller. A familiar criticism is that the new system has increased drunkenness. There is no reliable evidence to support this criticism although it is conceded that in certain districts the vicious habit of secret excessive drinking has been displaced by morally less harmful moderate and open drinking. At the September session of Council there was a full debate on the policy of Government regarding the outstill system. A motion recommending the appointment of a committee to enquire into the desirability of abolishing the system was negatived by 53 votes to 18 and the Council thus accorded their emphatic approval of the policy of the Excise Department.

For the calendar year 1934 the excise revenue amounted to one crore thirty-two and a half lakhs, an increase of nearly eleven lakhs over the preceding year. Among the causes contributing to this improvement may be mentioned the reduction in crime, the complete cessation of Congress propaganda against the excise shops, and the unexpected improvement of the purchasing power of the labouring classes in Bihar and Chota Nagpur at the beginning of the year. In Bihar the earthquake was followed by a general demand for labour, and work was abundant and well paid. The amount of money in circulation was also greatly increased by the distribution of vast sums in loans and grants to repair the damage inflicted by the earthquake. The earthquake itself did not seriously dislocate the district work of the Excise Department and although the District Officers were frequently thrown on their own initiative and resource, on the whole work was carried on as usual on the day following the earthquake. In Chota Nagpur a spectacular rise in the price of lac was responsible for a remarkable rise in the licence fees obtained for the outstills. The improved figures give some ground for hope that the end of the depression is in sight, but it has to be remembered that the excise revenue is still nearly Rs. 60 lakhs below that of 1929.

During the year the *tari* tree tax system was extended to the Gaya and Saran districts and to portions of the Shahabad, Champaran, Monghyr and Bhagalpur districts.

Survey and Settlement operations.

The revision settlement operations continued in the districts of the Santal Parganas and Ranchi. In the Santal Parganas the work was drawing to a close. In Ranchi the completion of the operations was in sight, but they will continue throughout the whole of 1935. The survey of the Patna City municipality under the Bihar and Orissa Municipal Act, 1920, was completed and work in the field in connection with the settlement of the public domain in the district of Shahabad was concluded. During the year the

Department also carried out at short notice a survey of the extent of the damage caused by earthquake sand. In all 4,137 square miles were surveyed with great expedition under conditions of great physical discomfort for the staff owing to the intense heat.

There was no programme for cadastral survey during the year. Records were attested in a total area of 1,355 square miles and finally published in 1,771 square miles. The rents of 29,663 tenants were settled.

In October 1934 work was commenced on the revision settlement operations in the Dhalbhum Estate in the district of Singhbhum. In the course of this revision settlement a survey and record-of-rights will be undertaken for the agricultural portion of the Jamshedpur Notified Area and the whole of the Jugsalai Notified Area.

The Legislative Council passed the proposal for this revision settlement after one year's postponement. The revision survey and settlement of North Bihar has not yet been resumed.

Forests.

There has yet been no general recovery in the prices of timber and other forest produce and the Department continued to work at a slight deficit. Vigorous efforts are being made to reduce the deficit by stimulating the sales of produce from Government forests. An officer of the Forest Department was deputed to visit Calcutta, Asansol, Kolaghat and other timber-consuming centres to study the market and interest merchants there in the type of produce available in the Government forests. The result of this experiment will not be apparent at once. In the Sambalpur West and Palamau Divisions the possibility is being examined of floating bamboos down the Mahanadi and Koel rivers for the paper mills. Should this prove feasible, the cost of transport would be so greatly reduced that the forests could be worked to their maximum capacity. In Puri district an experiment is being made of using carts fitted with Dunlop rubber tyres to extract firewood from the Casuarina plantation areas as ordinary country carts are unable to traverse the sand beds.

Both among landlords and tenants there is still widespread ignorance of the dangers of deforestation. In Ranchi during the revisional settlement operations many of the village jungles have been converted in *rakhats*. The *rakhats* were usually divided into three parts, one reserved for the *malik*, one for the raiyats and the third to remain as ordinary village jungle as it was before the scheme was introduced. It is hoped by this partition to check the wholesale destruction of village jungles which was going on at the hands

of both landlords and tenants. The new system has not yet existed long enough for a fair trial, but reports have been received of wholesale depredations by one party on the *rakhats* of the others. Government propose to introduce a scheme of inspection of the *rakhats* by specially trained aboriginals, who will advise landlords and village panchayats how best to manage and preserve them.

The members of the Bihar and Orissa Forest Association continued to do valuable propaganda work although their activities were restricted by want of funds.

Irrigation and Roads and Buildings.

The earthquake threw a heavy burden on the Public Works Department, for in addition to the wholesale destruction of Government buildings the damage to Irrigation works in Champaran, Saran and Muzaffarpur was very extensive. There was a general reorganisation of establishment. Two temporary posts of Deputy Chief Engineers were created, one in the Irrigation and the other in the Roads and Buildings branch. The Bhagalpur divisional area was constituted as a separate Public Works Department circle, while new Roads and Buildings Executive Engineer's divisions were formed at Darbhanga, Patna, Purnea and two new Irrigation divisions, called the Champaran (Irrigation) and Tirhut Waterways were also created. To staff these new posts a large portion of the Public Works Department cadre had to be concentrated in the earthquake area.

On the Irrigation side, the Dhaka and Teur canals gave most ground for concern for the head-works of both were badly damaged and large portions of the distributary system were silted up. The Dhaka canal was repaired in time for *Kharif* irrigation, but the Teur canal remained closed for irrigation throughout the year. Fortunately, the Tribeni canal escaped with little damage and was opened for hot weather irrigation for the first time in its history. Embankments were everywhere badly cracked and in many places subsided but repairs were rushed through before the flood season commenced. At Baikunthpur in Saran district, a retired line, 7½ miles long, was constructed in the very short space of 3½ months.

A description has already been given of the destruction of Government buildings throughout the affected area and the measures which have been taken for their repairs and reconstruction. New designs suitable for an earthquake area have now largely been worked out but the work of reconstruction is likely to be a heavy task for the next two or three years.

The simultaneous floods in the Ganges, Gogra and Son which have been described in an earlier paragraph of this report, did not

cause any serious damage to Irrigation works although there were numerous breaches in the distributaries of the Arrah and Patna canals. After the floods had subsided it was found that some damage had been done to the Son causeway and it is estimated that repairs will cost about Rs. 5,000. Considerable damage was done to certain roads maintained by the district boards but not to any of those maintained by the Public Works Department except the new road linking up Patna with Arrah, which is under construction and was to have been opened this year. Its embankment was washed away by the Son flood in a large number of places aggregating 2½ miles and considerable damage was done to bridges and causeways.

The New Capital, Patna, was also threatened by the high Ganges flood at the same time and the area would have been inundated had protective measures not been taken to save the protective embankment along the Dinapur-Bankipur road.

In Orissa there were high floods in the Mahanadi and Katjuri rivers in August and September but the repairs to the embankment made after the floods of 1933 withstood the strain successfully and the only serious damage was to a portion of the Capital Embankment opposite the compound of the Collector's residence at Cuttack.

Deficient rainfall in Bihar during the hot weather caused a keen demand for water for sugarcane irrigation in Dehri and Arrah Division. In spite of the low level of the Son, the demand was largely met except in the Bikram subdivision where the cane crop suffered. In the Kharif season the demand was again keen, but was satisfactorily met. In Orissa the demand for canal water was not very strong owing to favourable rainfall. The leases, which expired on 31st March 1934, were not fully renewed partly because of the favourable rainfall and partly because there is a movement among certain influential people to avoid payment of the water-rate.

The Sur lake cut which was completed in 1932 was again of great use.

Agriculture.

Rainfall during the early months of the year was deficient, and the monsoon was somewhat late in arriving. However there was adequate rain in most districts during July and although there was again a deficiency during August this was made up in September. The fall was again slightly below normal in October but it came at a most opportune moment and was of great benefit to the paddy crop. On the whole agricultural conditions have been good, in

spite of the Ganges floods in August. The outturn of winter rice has been estimated at 99 per cent of the past ten years' average, that of all kinds of *bhadai* crop at 90 per cent and that of the sugarcane crop at 93 per cent. Prices of agricultural produce continued low as during last year but towards the end of the year there was a distinct rise in the price of rice, maize and other staple food grains. In the second week of December common rice was selling at 13.55 seers to the rupee and maize at 17.64 seers as compared with 14.81 and 20.29 seers respectively at the same time in 1933.

In the paragraphs dealing with the earthquake a description has been given of the devastation wrought to agricultural land and the relief measures which were undertaken by Government to reclaim sand-damaged fields and to salve the sugar crop in parts where the factories were put out of action. It is not necessary to give in detail a description of the particular duties which fell upon the Agricultural Department, but necessarily they absorbed a large part of the energies of the Department throughout the year. Two Assistant Directors of Agriculture, 20 agricultural overseers, and 40 trained kamdars were employed in teaching the raiyats the proper technique of making good *gur*. An additional Assistant Director of Agriculture was employed in charge of 20 peripatetic demonstration parties in demonstrating suitable methods of reclaiming sand-damaged land.

Research on sugarcane and rice continued on the lines of previous years. Satisfactory progress was also made in the economic enquiry into the cost of production of sugarcane and the crops grown in rotation with it. A fruit Research Scheme has also been started. The Horticulturist has undertaken a survey of the best orchards of mangoes and litchis in North and South Bihar and he has also examined market conditions for Bihar fruits in Calcutta. Another scheme of investigation into the malting and brewing qualities of Bihar barleys has been commenced at Sabour. There are also other schemes which will be put into operation as soon as the approval of the Imperial Council of Agricultural Research is received and funds allotted.

By the beginning of the year the unprecedented expansion of the white sugar industry had made it imperative that action should be taken by Government to promote healthy relations between the factories and growers, to reconcile the clash of divergent interests, and to ensure that a fair proportion of the profits arising out of the enhanced tariff rate should reach the growers. Act XV of 1934, enacted by the Government of India, armed the local Government with the necessary powers. The Bihar and Orissa

Sugarcane Rules have now been promulgated. The principal action taken under these rules comprises the appointment of five inspectors, the setting up of advisory committees and the fixing of the minimum price of cane on a sliding scale according to the price of sugar. The minimum price in force since the rules came into force has been 5 annas a maund of cane. There are, of course, still many problems to be settled and it remains to be seen how far the action taken will be effective and adequate.

Veterinary.

2,942 outbreaks of various contagious diseases were reported during 1934, of which 2,675 were attended by the veterinary staff. 55,147 animals were affected and there were 10,790 deaths. The number of inoculations rose by over 80,000 to 237,637.

During the year 31 new field dispensaries were opened and 23 of the old dispensaries were closed. The number of animals treated was 378,314 compared with 275,862 during the previous year.

At the annual and diploma examinations of the Bihar and Orissa Veterinary College twenty-six of the forty-three students were successful. Twenty-five new students took their admission during the current session bringing the total number up to fifty-six. Research work on certain obscure livestock diseases was continued with some success under the Veterinary Disease Investigation Officer.

Co-operative Societies.

Everywhere the dead weight of economic depression made recovery extremely difficult while in the earthquake areas the damage to land and house property diminished the capacity of many members to repay their dues. There was consequently little improvement in the position of the banks and societies during the year.

During the period under report only 75 societies were registered and 130 societies were placed under liquidation. It is satisfactory to note that the number of societies placed under liquidation shows a considerable slackening off when compared with the numbers in recent years, viz. 259 in 1933 and 330 in 1932. The new societies include two better living societies in Gaya district, one Thrift Society for the students of Araria H. E. School, and a society for Municipal Mehtars of Giridih.

The Committee on Co-operation recommended that, to meet the demand for long-term capital, the Provincial Co-operative Bank should issue debentures the interest on which should be guaranteed

by Government. This was agreed to, but the proposal has fallen through. The Provincial Bank then applied to Government for a loan of Rs. 25 lakhs repayable in 20 equal annual instalments and Government have agreed to grant a loan of Rs. 16 lakhs repayable in 15 instalments on certain terms and conditions. The Provincial Bank have now decided to accept the loan on the terms and conditions proposed.

An important measure introduced at the Ranchi session of the Legislative Council was the Bihar and Orissa Co-operative Bill. 1934. The Bill is intended to meet the special requirements of the movement in Bihar and Orissa and embodies a number of recommendations of the Committee on Co-operation. If passed, it should help to remove some of the defects which have been apparent in the working of the movement during the last few years. The Bill has been referred to a Select Committee.

The movement in general and the Co-operative Federation in particular sustained a serious loss in the death of Babu Mahendra Prasad, Deputy Governor of the Bihar and Orissa Co-operative Federation, on the 3rd June 1934. His loss will be much felt.

Industries.

In general the depression of the previous year continued during the year under report. In North Bihar, however, reconstruction work after the earthquake has given a considerable stimulus to the engineering and building trades and the cement industry. As last year, sugar manufacture continued to be the only really flourishing industry of the province; in spite of the enormous damage done by the earthquake, which left eight of the mills in a crippled condition, the industry continues to expand and the damaged mills are likely to recoup their losses within a very short time. The same cannot unfortunately be said of the many rice, flour, oil and *dal* mills which were badly damaged; many of these mills were already in serious straits owing to the depression, and working far below their full capacity. For the fourth year in succession, no grants could be made under the State Aid to Industries Act owing to financial stringency.

There was a welcome revival in the amount of fresh fish exported, the total being 91,245 maunds as compared with 69,980 maunds in 1933. There was some decrease in the demand for fry and only 320,000 fry were distributed as against 382,500 in the previous year. Many of the villagers who would in the ordinary way have applied for fry were too occupied with their troubles arising from the earthquake. As usual, tanks stocked with fry supplied by the Department were regularly inspected and advice

given to the tank-owners as to the special measures necessary for success. 1,586 larvicidal fish were also supplied to tank-owners on request to check the breeding of mosquitoes.

The Department again participated in the British Industries Fair held in London in February 1934. This annual fair has played an important part in promoting the sale of Bihar textiles in England. Exhibits were also sent to the Leipzig International Spring Fair and the Toronto Centenary Exhibition. Orders from the London agent for durries to match Bihar purdahs were greatly in excess of what could be undertaken at the Institute, and arrangements were made for their manufacture with the Obra Carpet Weavers' Society.

Technical and Industrial education.

The three State technical scholarships for foreign training were held in abevance and there is now no State technical scholar from Bihar and Orissa in England. Thirty-one students graduated at Patna University as Bachelors of Civil Engineering, three in the first division, nineteen in the second and the remainder in the third. Fifty students were successful in the Combined Civil Engineering Subordinate Examination. The industrial diploma classes at the Bihar College of Engineering, the Orissa School of Engineering and the Ranchi Technical School and the Tirhut Technical Institute continued to be popular and the number of applications for admission was generally in excess of the accommodation. The Cottage Industries Institute and other industrial institutes also continued to make fair progress in spite of the industrial depression.

Factories.

The total number of registered factories is now 354 as compared with 347 in 1933. Ten new sugar factories have been registered. The continued growth of the sugar industry under the aegis of protection is further shown by a phenomenal increase in the number of workers employed in sugar factories. The numbers employed in this industry are now 18,500 as compared with 13,524 in 1933 and 8,862 in 1932. The industry is now the second largest employer of factory labour in the province, coming second only to metal manufacture which employs 20,680. Engineering is a close third with 16,262 employees.

These three industries, Metal manufacture, Sugar and Engineering together account for more than two-thirds of the 77,700 factory employees in the province.

The total number of accidents up to the end of October 1934 has been 1,831 as compared with 1,618 for the corresponding

period of last year. During the same period the managers and occupiers of 6 factories have been prosecuted on various charges.

Mines.

There are as yet no marked signs that the end of the depression is in sight. There was a further fall in the price of coal although there was a slight rise in the price of " Smalls ". The total output of coal rose from 11 million tons to 12.36 million tons, the increase being partly accounted for by increased consumption on the railways during the latter part of the year. The mica industry was more fortunate and there was a welcome improvement in prices. Exports were over 50 per cent better than in 1933 and mining activity increased towards the end of the year.

The number of coal-mines worked was 274, of which 19 were closed during the year. Three mines were re-opened. The number of metalliferous mines worked during the year was 625, namely mica 452, stone 100, slate 12, limestone 11, chromite 11, fireclay 9, manganese 6, clay 5, sandstone 4, steatite 3, copper 3, asbestos 3, gold 2, iron-ore 2 and barytes 2. There was an increase of 174 in the number of metalliferous mines working as compared with the previous year. The increase was chiefly noticeable among the mica and stone mines. Three asbestos and 2 barytes mines were opened this year.

There were 409 accidents in the mines, of which 90 were fatal. The number of persons killed was 108, while 346 were injured; the corresponding figures for 1933 being 82 and 294, respectively.

Labour welfare.

The cost of living index figures published by Government show a slight but general rise in the cost of living, which is to be attributed mainly to the rise in the price of rice. The cost of clothing remained stationary. Cuttack continued to be the cheapest town and Jamshedpur the dearest. Relations between employers and labour were satisfactory and the general health of the mining population continued to be good, particularly in the area controlled by the Jharia Mines Board of Health. The Tata Iron and Steel Company have made extensive improvements in drainage.

APPENDIX II.

A.—MEMBERS OF THE BIHAR AND ORISSA EXECUTIVE COUNCIL.

His Excellency Sir James David Sifton, K.C.S.I., K.C.I.E., I.C.S.
The Hon'ble Mr. John Tarlton Whitty, C.S.I., C.I.E., I.C.S.
The Hon'ble Babu Nirsu Narayan Sinha, M.A., B.L.

B.—MINISTERS.

Ministry of Local Self-Government: The Hon'ble Sir Ganesh Datta Singh, Kt
Ministry of Education: The Hon'ble Mr. Saiyid Abdul Aziz, Bar.-at-Law.

C.—MEMBERS OF THE BIHAR AND ORISSA LEGISLATIVE COUNCIL.

The Hon'ble Babu Rajandhari Sinha, B.A., B.L.—President.
Rai Bahadur Lakshmidhar Mahanti—Deputy President.
Mr. Saiyid Anwar Yusuf, Bar.-at-Law—Secretary.
Babu Raghunath Prashad, M.A., B.L.—Assistant Secretary.

EX-OFFICIO MEMBERS—(2).

The Hon'ble Mr. John Tarlton Whitty, C.S.I., C.I.E., I.C.S.

The Hon'ble Babu Nirsu Narayan Sinha, M.A., B.L.

NOMINATED OFFICIALS—(13).

Mr. Henry Carlos Prior, I.C.S.
Mr. Walter Graham Lacey, I.C.S.
Lieut.-Col. John Alfred Steele Phillips.
Mr. Yeshwant Anant Godbole, I.C.S.
Mr. John Wardle Houlton, I.C.S.
Mr. Robert Edwin Russell, C.I.E., I.C.S.
Mr. Frederick Archibald Betterton.
Mr. Herbert Ribton Meredith, I.C.S.
Mr. Bhalchandra Krishna Gokhale, I.C.S.
Mr. William Bailie Brett, C.I.E., I.C.S.
Mr. Norman Frederick Peck, C.B.E., I.C.S.
Mr. H. Lambert.
Mr. Herbert Ellis Horsfield, I.C.S.

NOMINATED NON-OFFICIALS—(4).

Khan Bahadur Shah Muhammad Yahya, C.I.E.

Rai Bahadur Kedar Nath.

Babu Bimla Charan Singh.

Rai Sahib Sri Ballabh Das.

REPRESENTATIVES OF CLASSES AND COMMUNITIES—(9).

Mr. Sagram Hembrome ...	(Aborigines).
Garbett Captain Manki ...	
Reverend Brajananda Das ...	(Depressed Classes).
Babu Ram Narayan ...	
Rai Bahadur Ram Ranvijaya Singh.	(Industrial interests other than Planting and Mining).
Rai Bahadur Birendra Nath Chakravartti.	(The Domiciled Bengali Community).
Mr. Alfred Eustace D'Silva ...	(The Anglo-Indian Community).
Mr. Rowland Chandra ...	(Indian Christian Community).
Rai Bahadur Harendra Nath Banarji.	(The labouring classes).

ELECTED MEMBERS—(76).

Name.	Constituencies.
Patna Division—(16).	
The Hon'ble Mr. Saiyid Abdul Aziz.	Patna Division Muhammadan Urban.
Mr. S. M. Cassim	East Patna Muhammadan Rural.
Mr. Muhammad Yunus ...	West Patna Muhammadan Rural.
Babu Rajeshvari Prashad ...	Patna Division Non-Muhammadan Urban.
Babu Shyam Narayan Singh Sharma.	Patna Non-Muhammadan Urban.
Sir Ganesh Datta Singh ...	East Patna Non-Muhammadan Rural.
The Hon'ble Babu Rajandhari Sinha.	West Patna Non-Muhammadan Rural.
Raja Bahadur Harihar Prashad Narayan Singh, O.B.E.	Landholders', Patna Division.
Maulavi Khalilur Rahman ...	Gaya Muhammadan Rural.
Babu Ramanugrah Narayan Singh.	West Gaya Non-Muhammadan Rural.
Babu Bhagwati Sharan Singh ...	Central Gaya Non-Muhammadan Rural.
Babu Rameshvar Prashad Singh	East Gaya Non-Muhammadan Rural.
Chaudhuri Sharafat Husain ...	Shahabad Muhammadan Rural.
Mr. Sachchidananda Sinha ...	Central Shahabad Non-Muhammadan Rural.
Babu Radha Prashad Sinha ...	South Shahabad Non-Muhammadan Rural.
Babu Radha Mohan Sinha ...	Arrah Non-Muhammadan Rural.
Tirhut Division—(19).	
Maulavi Muhammad Abdul Ghani	Tirhut Division Muhammadan Urban.
Maulavi Muhammad Hasan Jan	Muzaffarpur Muhammadan Rural.
Maulavi Shaikh Muhammad Shafi	Darbhanga Muhammadan Rural.
Khan Bahadur Saghir-ul-Haqq ...	Saran Muhammadan Rural.
Maulavi Abdul Wadood ...	Champaran Muhammadan Rural.

Name.	Constituencies.
Rai Bahadur Dwarka Nath ...	Tirhut Division Non-Muhammadan Urban.
Babu Harekrishna Chaudhuri ...	North-West Darbhanga Non-Muhammadan Rural.
Mahanth Manmohan Das ...	North-East Darbhanga Non-Muhammadan Rural.
Babu Sardananda Kumar ...	South-East Darbhanga Non-Muhammadan Rural.
Babu Ramasray Prashad Chaudhuri.	Samastipur Non-Muhammadan Rural.
Babu Rameshvar Pratap Sahi ...	North Muzaffarpur Non-Muhammadan Rural.
Babu Sri Narayan Mahtha ...	East Muzaffarpur Non-Muhammadan Rural.
Babu Badri Narayan Singh ...	West Muzaffarpur Non-Muhammadan Rural.
Rai Bahadur Shyam Nandan Sahay.	Hajipur Non-Muhammadan Rural.
Babu Jagdeva Prashad Singh ...	North Saran Non-Muhammadan Rural.
Babu Harmadho Prashad Sinha	South Saran Non-Muhammadan Rural.
Rai Bahadur Krishnadeva Narayan Mahtha.	North Champaran Non-Muhammadan Rural.
Babu Lalita Prashad Chaudhuri	South Champaran Non-Muhammadan Rural.
Babu Chandreshvar Prashad Narayan Sinha.	Landholders', Tirhut Division.

Bhagalpur Division—(17).

Khan Bahadur Abdul Wahhab Khan.	Bhagalpur Division Muhammadan Urban.
Chaudhuri Muhammad Nazirul Hasan.	Bhagalpur Muhammadan Rural.
Maulavi Saiyid Muhammad Mehdi	Monghyr Muhammadan Rural.
Maulavi Haji Muhammad Bux Chaudhuri.	Purnea Muhammadan Rural.
Mr. Saiyid Moinuddin Mirza ...	Kishanganj Muhammadan Rural.
Maulavi Abdul Aziz	Santal Parganas Muhammadan Rural.
Babu Jogendra Mohan Sinha ...	Bhagalpur Division Non-Muhammadan Urban.
Rai Bahadur Haldhar Prashad Singh.	North Bhagalpur Non-Muhammadan Rural.
Babu Rudra Pratap Singh ...	Central Bhagalpur Non-Muhammadan Rural.
Mr. K. Lal	South Bhagalpur Non-Muhammadan Rural.
Babu Sri Krishna Prashad ...	South-West Monghyr Non-Muhammadan Rural.
Babu Bishundeo Narayan Singh ...	North-West Monghyr Non-Muhammadan Rural.

Name.	Constituencies.
Rai Bahadur Lakshmi Prashad Sinha.	East Monghyr Non-Muhammadan Rural.
Raja Prithwi Chand Lal Chaudhuri	Purnea Non-Muhammadan Rural.
Babu Shib Chandra Singh ...	Santal Parganas North Non-Muhammadan Rural.
Babu Ramjiwan Himatsingka ...	Santal Parganas South Non-Muhammadan Rural.
Rai Bahadur Dalip Narayan Singh	Landholders', Bhagalpur Division.

Orissa Division—(10).

Maulavi Shaikh Abdul Jalil ...	Orissa Division Muhammadan Rural.
Babu Harihar Das	Orissa Division Non-Muhammadan Urban.
Rai Bahadur Lakshmidhar Mahanti	North Cuttack Non-Muhammadan Rural.
Babu Nikunja Kishore Das ...	South Cuttack Non-Muhammadan Rural.
Babu Radharanjan Das ...	North Balasore Non-Muhammadan Rural.
Babu Jagannath Das	South Balasore Non-Muhammadan Rural.
Babu Godavaris Misra ...	North Puri Non-Muhammadan Rural.
Rai Bahadur Loknath Misra ...	South Puri Non-Muhammadan Rural.
Babu Braja Mohan Panda ...	Sambalpur Non-Muhammadan Rural.
Babu Birabar Narayan Chandra Dhir Narendra.	Landholders', Orissa Division.

Chota Nagpur Division—(9).

Khan Bahadur Habibur Rahman	Chota Nagpur Division Muhammadan Rural.
Mr. Nanda Kumar Ghosh ...	Chota Nagpur Division Non-Muhammadan Urban.
Rai Bahadur Sarat Chandra Ray	Ranchi Non-Muhammadan Rural.
Babu Kalyan Singh	Hazaribagh Non-Muhammadan Rural.
Bhaiya Rudra Pratap Deo ...	Palamau Non-Muhammadan Rural.
Rai Bahadur Satish Chandra Sinha	South Manbhum Non-Muhammadan Rural.
Babu Devendra Nath Samanta ...	Singhbhum Non-Muhammadan Rural.
Babu Kunja Bihari Chandra ...	North Manbhum Non-Muhammadan Rural.
Babu Maheshvari Prashad Narayan Deo.	Landholders', Chota Nagpur Division.

Others—(5).

Maulavi Saiyid Muhammad Hafeez	Patna University.
Mr. Joshua Thomas	European Constituency.
Mr. W. H. Meyrick	Planting Constituency.
Mr. Ian A. Clark	Indian Mining Association.
Babu Manindra Nath Mukharji ...	Indian Mining Federation.

Name.	Constituencies.

D.—MEMBERS OF THE COUNCIL OF STATE FROM BIHAR AND ORISSA.

NOMINATED OFFICIAL—(1).

The Hon'ble Mr. C. L. Philip, C.I.E., I.C.S.

NOMINATED NON-OFFICIAL—(1).

The Hon'ble Maharajadhiraja Sir Kameshwar Singh, K.C.I.E., of Darbhanga.

ELECTED—(3).

The Hon'ble Rai Bahadur Radha Krishna Jalan.	Bihar and Orissa (Non-Muhammadan).
The Hon'ble Raja Raghunandan Prashad Singh.	
The Hon'ble Mr. Abu Saiyid Hussain Imam.	Abdullah Bihar and Orissa (Muhammadan).

E.—MEMBERS OF THE LEGISLATIVE ASSEMBLY FROM BIHAR AND ORISSA.

NOMINATED OFFICIAL—(1).

Babu Pradyumna Prashad Singh.

ELECTED—(12).

Saiyid Shah Muhammad Maswood Ahmad.	Patna and Chota Nagpur *Cum* Orissa (Muhammadan).
Mr. Bhupat Singh	Bihar and Orissa (Landholders).
Maulavi Badi-uz-zaman ...	Bhagalpur Division (Muhammadan).
Maulavi Muhammad Shafee Daoodi	Tirhut Division (Muhammadan).
Pandit Ram Kishun Jha ...	Darbhanga *Cum* Saran (Non-Muhammadan).
Mr. Gaya Prashad Singh ...	Muzaffarpur *Cum* Champaran (Non-Muhammadan).
Mr. Bhubananda Das	Orissa Division (Non-Muhammadan).
Babu Sita Kanta Mahapatra ...	Ditto.
Mr. Badri Lal Rastogi ...	Patna *Cum* Shahabad (Non-Muhammadan).
Kumar Gupteshwar Prashad Singh	Gaya *Cum* Monghyr (Non-Muhammadan).
Rai Bahadur Sukhraj Rai ...	Bhagalpur, Purnea and the Santal Parganas (Non-Muhammadan).
Thakur Mahendra Nath Sahi Deo ...	Chota Nagpur Division (Non-Muhammadan).

APPENDIX III.

GENERAL ABSTRACT OF REVENUE AND RECEIPTS.

[IN THOUSANDS OF RUPEES EXCEPT ACCOUNTS.]

Major heads.	Budget Estimate, 1934-35.	Revised Estimate 1933-34.	Budget Estimate, 1933-34.	Accounts, 1932-33.
	TRS.	TRS.	TRS.	Rs.
II.—Taxes on Income	1,25	1,25	3,17	1,21,979
III.—Salt	1,50	1,50	3,00	3,19,200
V.—Land Revenue	1,80,13	1,77,91	1,79,57	1,80,85,097
VI.—Excise	1,27,00	1,22,00	1,27,01	1,20,00,804
VII.—Stamps	1,11,50	1,11,50	1,07,50	1,06,57,297
VIII.—Forests	6,90	6,84	6,39	6,18,859
IX.—Registration	13,50	13,26	13,50	12,66,201
XIII.—Irrigation, Navigation, Embankment and Drainage Works for which Capital accounts are kept.(a)	26,28	18,07	19,17	21,86,527
XIV.—Irrigation, Navigation, Embankment and Drainage Works for which no capital accounts are kept.	97	97	99	1,06,766
XVI.—Interest	4,72	4,85	4,92	5,15,843
XVII.—Administration of Justice	5,03	4,94	5,46	5,37,964
XVIII.—Jails and Convict Settlements ..	3,83	3,57	4,32	4,36,985
XIX.—Police	1,70	1,73	1,82	1,69,195
XX.—Ports and Pilotage ..	3	..	4	975
XXI.—Education	7,29	7,24	7,46	7,05,466
XXII.—Medical	2,04	2,12	2,11	2,14,605
XXIII.—Public Health	2,23	1,64	1,61	1,31,540
XXIV.—Agriculture	2,31	2,27	2,41	2,27,662
XXV.—Industries	2,15	2,15	2,22	4,64,818
XXVI.—Miscellaneous Departments ..	30	30	32	31,108
XXX.—Civil Works	9,42	9,48	8,66	10,64,394
XXXII.—Transfers from Famine Relief Fund ..	5,50	..	..	..
XXXIII.—Receipts in aid of Superannuation ..	1,00	1,06	99	1,31,373
XXXIV.—Stationery and Printing	2,32	2,41	2,51	2,52,068
XXXV.—Miscellaneous	3,34	3,54	3,35	3,36,713
XXXIXA.—Miscellaneous adjustments between the Central and Provincial Governments.	..	..	..	..
XL.—Extraordinary Receipts	..	..	..	496
TOTAL REVENUE ..	5,22,24	5,00,60	5,08,50	5,05,83,035
Loans and advances by the Provincial Government (Recoveries).	8,28	7,35	7,24	8,95,212
Deposit Account of the grant made by the Imperial Council of Agricultural Research.	1,01	89	71	1,19,636
Advances from the Provincial Loans Fund ..	5,68	..	..	..
Transfers from Famine Relief Fund	11,26	8,82	11,26	4,60,131
Famine Relief Fund	8,11	8,65	9,34	9,21,605
Subvention from Central Road Development Account	1,42	3,40	3,30	6,81,150
Appropriation for reduction or avoidance of debt ..	71	63	58	59,786
Suspense	1,40	1,45	1,75	82,499
TOTAL RECEIPTS ..	5,60,11	5,31,79	5,42,68	5,38,03,054
Opening Balance	47,16(c)	56,69(b)	52,34	42,55,193
GRAND TOTAL ..	6,07,27	5,88,48	5,95,02	5,80,58,247

(a) The Budget Estimate 1933-34 included entire Irrigation Establishment and Tools and Plant charges as a deduct entry under the head "XIII—Irrigation" but the Budget Estimate 1934-35 provides only for the purely Irrigation Establishment and Tools and Plant charges as a deduct entry under this head. The common establishment and Tools and Plant charges (eventually debitable in accounts to "Irrigation") are included in the budget for 1934-35 under "41—Civil Works". This accounts for an increase of Rs. 7 lakhs on the receipt side as also on the expenditure side.

(b) Includes 33,40 in Famine Relief Fund, 5,59 for Road Subventions and 10 out of the grants made by the Imperial Council of Agricultural Research.

(c) Includes 33,23 in Famine Relief Fund, 5,92 for Road Subventions and 1 out of the grants made by the Imperial Council of Agricultural Research.

APPENDIX III—*concld.*

GENERAL ABSTRACT OF EXPENDITURE FOR 1934-35.

[IN THOUSANDS OF RUPEES.]

Major heads.	Budget Estimate 1934-35.	Revised Estimate 1933-34.	Budget Estimate, 1933-34.	Accounts, 1932-33.
	Trs.	Trs.	Trs.	Trs.
5.—Land Revenue	15,63	17,54	17,24	19,57
6.—Excise	17,02	14,75	15,09	14,51
7.—Stamps	1,98	2,06	2,18	2,02
8.—Forests	7,21	6,95	7,20	6,70
8A.—Forests Capital outlay charged to revenue	17	21	18	15
9.—Registration	6,53	6,16	6,30	5,71
14.—Interest on Irrigation Works for which capital accounts are kept.	20,40	20,41	20,45	20,41
15.—Irrigation Revenue Account—Other Revenue expenditure financed from ordinary revenue.	2,85	2,20	1,51	4,15
15 (1).—Other revenue expenditure financed from Famine Insurance grants.	..	..	..	..
16.—Irrigation Capital Account—Construction of Irrigation, Embankment and Drainage Works.	—46	..	..	..
19.—Interest on Ordinary Debt	47	49	56	65
20.—Interest on other obligations	84	86	1,01	94
21.—Appropriation for reduction or avoidance of debt	71	63	58	60
22.—General Administration	75,78	69,26	75,84	66,10
24.—Administration of Justice	40,16	38,13	39,75	37,31
25.—Jails and Convict Settlements	18,97	17,94	20,81	19,93
26.—Police	85,43	84,32	86,26	82,36
27.—Ports and Pilotage	2	..	2	..
30.—Scientific Departments	32	31	31	30
31.—Education	81,58	81,80	81,22	77,58
32.—Medical	26,51	26,24	26,25	24,64
33.—Public Health	11,56	10,53	11,43	8,57
34.—Agriculture	14,18	13,49	13,84	12,73
35.—Industries	8,44	7,99	8,51	8,00
37.—Miscellaneous Departments	67	68	71	68
41.—Civil Works	(a)51,12	42,06	38,94	43,02
43.—Famine	43	57	43	..
45.—Superannuation Allowances and Pensions	39,42	36,77	35,11	34,78
45A.—Commutation of pensions financed from ordinary revenue.	..	..	..	..
46.—Stationery and Printing	7,53	7,20	8,05	7,66
47.—Miscellaneous	1,33	1,13	1,30	1,13
51.—Contributions to the Central Government by the Provincial Government.	..	..	..	..
51A.—Miscellaneous adjustments between the Central and Provincial Governments.	..	..	..	..
52.—Extraordinary payments	20	23	8	28
TOTAL—EXPENDITURE CHARGED TO REVENUE	(a) 5,37,00	5,10,91	5,21,16	5,00,48
Commuted value of Pensions	2,81	3,07	3,06	2,64
Payments to retrenched personnel	2	14	—3	39
Deposit Account of the grant made by the Imperial Council of Agricultural Research.	1,01	98	71	1,24
Loans and advances by the Provincial Government	14,01	5,50	8,36	2,05
Repayments of Advances from the Provincial Loans Fund.	71	63	58	60
Transfers from Famine Relief Fund (Repayments)	6,26	6,71	7,08	6,85
Famine Relief Fund	16,76	8,82	11,26	4,60
Subventions from Central Road Development Account	3,10	3,07	2,47	4,25
Suspense	1,39	1,49	1,69	1,09
TOTAL—EXPENDITURE NOT CHARGED TO REVENUE	46,07	30,41	35,18	23,41
Reserve for unforeseen	..	..	1,00	..
TOTAL—EXPENDITURE	5,83,07	5,41,32	5,57,34	5,23,89
Closing Balance	(b)24,20	47,16	37,68	56,69
GRAND TOTAL	6,07,27	5,88,48	5,95,02	5,80,58
Provincial — Surplus	..	..	..	..
Provincial — Deficit	22,96	9,53	14,66	..

(a) Please see the footnote (a) on page xxxiv.
(b) Includes 24,58 in Famine Relief Fund, 424 for Board Subventions and 1 out of the grants made by the Imperial Council of Agricultural Research.

APPENDIX IV.

Speech delivered by Sir James David Sifton in connection with the Earthquake at a public meeting at Patna, on 22nd January 1934.

GENTLEMEN,

I have asked you to come here to-day in order that I might make a statement on the present situation in Bihar, so far as is now realised, to tell you briefly the manner of relief already organised and to invite your donation to a provincial branch of the Viceroy's Earthquake Relief Fund. When the decision was taken to call this public meeting, it was proposed to inaugurate a provincial fund, but since the Viceroy's announcement on Friday to open an all-India fund, it is clearly desirable that we should not compete but pool our resources in that fund.

We are meeting here under the shadow of an appalling disaster, the magnitude of which is still only partly known. Just a week ago, we, in Patna, all had experience of the terror and the havoc occurring when the forces of nature appear to break out of control. The stroke fell without warning, and in the space of a few minutes in the city of Patna, fifty persons had been killed, ten times as many injured and hundreds of houses were in ruins. Terrible as the earthquake was in Patna, it was even worse in the towns of North Bihar, particularly in Muzaffaprur and Darbhanga and in Monghyr; but the southern portion of our province fortunately escaped more lightly.

The toll taken in human life is very heavy, yet we have to be thankful that it is not heavier. Had the shock occurred two hours after midnight instead of two hours from midday, tragedy would have been infinitely worse. Even now nothing but an approximate estimate can be given of the number of deaths, but I hope it may be found not to have exceeded four thousand. It is wholly impossible to give any estimate at all of the number injured, for the numbers brought for treatment to hosptial in no way represent the total number of victims.

Compared with the fatality in the towns, the loss of life and the cases of serious personal injury in the villages in the countryside have not been large.

Besides those families who have suffered bereavement, there are many thousands of persons who have lost their homes, and their belongings and have saved little but their lives. Their houses have fallen and their property lies buried in the ruins.

In the towns the catastrophe spared nobody; rich and poor have suffered alike; palaces, bungalows, shops, mills, factories, offices have all been demolished. But residents in villages were in a better case. The humble mud-dwelling of the agriculturist with a roof of thatch or tiles stood up, where the brick houses crumbled, and the death-roll among the raiyats and their live-stock has everywhere been light relatively to the losses of the town-dwellers.

I do not give a catalogue of the loss of life in various parts of Bihar. As reliable reports have come in, they have at once been given out to the public; sometimes they have been worse than anticipated and sometimes less bad than the alarm which rumour had spread. The earlier reports to and from

Government did not include anything like the full extent of the disaster, since for three days all communication with Tirhut, except as far as Muzaffarpur, was cut. The postal system ceased to work, telegraph lines were broken and communications by road and rail were destroyed by the floods and the earthquake. This isolation of the stricken towns with no knowledge of what was happening in the rest of the world must have been by no means the least of the terrors in the situation. We have now been able to re-establish touch with the districts and subdivisions of Bihar and, though the possibility of a survey of the loss caused by the catastrophe is still a long way off, it is possible to take stock in a general way of the kind of loss which has been inflicted on the community.

The direct loss which has fallen upon Government is enormous. Colleges, hospitals, courts, offices, jails, residences, railways, roads, bridges, embankments have to be rebuilt, and for the moment general administration is inevitably at a standstill in most of Bihar. I cannot venture on an estimate of the cost of replacement, but I was told by an Engineer that in one town alone Government buildings to the value of thirty lakhs were in ruins.

In a similar category comes the destruction of the property of the district boards and municipalities. Their schools, hospitals, dispensaries, bungalows and wells have suffered; large bridges over the rivers have been destroyed, culverts broken, and in some parts, the roads have been almost obliterated. These bodies work with no reserves. They are dependent on the rates and cesses collected from the public. The process of restoration is hopelessly beyond their resources.

The extent of destruction of private property in towns can only be imagined. From the damaged houses there may be salvage of the owners' personal property, but from those houses which are now but a heap of bricks and dust, little of value can be rescued. It is among the town-dwellers that the distress at the moment is most grave: so many persons have lost their all and must be helped to make a fresh start in life.

In a special category come sugar-mills so recently erected at the cost of several lakhs of rupees each, which gave employment to hundreds of labourers and skilled workmen. Though some have escaped more lightly than was at first supposed, others are destroyed and many are out of action for a season.

So far I have said nothing of the damage to the agriculturists, who actually form the great majority of the population. The parts in Tirhut most severely affected by the earthquake include those areas which have already suffered this year from two or even three floods. A week ago there was promise that the *rabi* harvest would to some extent compensate for the failure of the paddy, but I fear that the flood which followed the earthquake has crushed that hope. I have seen for myself some of the flooded areas of Muzaffarpur and Champaran with crops covered by water or slime and I apprehend that charitable relief on a large scale may become necessary. Also I am apprehensive that the deposit of slime and sand erupted from geysers and fissures may have gravely affected the soil in many of the fields, and that in these parts until the deposit is removed or absorbed the notable fertility of North Bihar may deteriorate.

Again the destruction of the sugar factories reacts disastrously upon agriculture. Where the factories cannot work, the raiyat has lost his market for what is now his most profitable money-crop from which he pays his rent and gets money for such things as he must buy. The three districts worst affected contain 200,000 acres under sugar-cane and at least half of the mills which took the produce cannot now function. The problem of saving something from the wreckage of the cane-harvest is one of the most urgent for consideration. Consequent upon the flooding of the country and the upheaval of the countryside is the danger of epidemics. Wells have silted up completely

or their masonry has cracked so as to admit seepage from the surface drainage; and the pollution of the water-supply may have disastrous results both in towns and villages.

We are faced therefore with two distinct problems, first, the need for immediate relief and prevention of epidemic disease, and afterwards comes the problem of reconstruction.

I can only describe at this stage the general measures taken for relief. Without aeroplanes we must have remained for days in total ignorance of the extent of the disaster. Fortunately on the day following the earthquake we were able to get the services of a private aeroplane piloted by Captain Palmer and on the following morning a second machine arrived in response to our telegram to Calcutta, since when we have had two aeroplanes continually operating. We owe much to the energy and efficiency of the pilots and observers.

As soon as the first news was received, the police reserves of the province were immediately mobilised and despatched to the affected areas; and I am happy to say that up to the present there has been no signs of disorder or looting. The Army Department offered us the use of troops, but these were not needed.

We had then to put money at the disposal of local officers to deal with the situation. For immediate emergencies Rs. 6,000 was placed at the disposal of the District Magistrates of each of the badly-affected districts to spend as they found necessary upon all kinds of relief.

From Monghyr came the first call for medical assistance. Nine doctors were at once sent. Since then three have been sent to Darbhanga and three doctors with six senior medical students to Muzaffarpur, some of whom were to be available for Motihari.

In anticipation of a shortage of medical stores, the Civil Surgeons were authorised to order additional stores at their own discretion. Lists of doctors and senior medical students volunteering for public health work in the muffassal as soon as communications are re-opened have been prepared and these will be despatched as soon as their services can be used.

As regards organisation, I have reports from Muzaffarpur that 12 relief centres and 4 sanitation centres have been organised and running since the 18th, and 35 areas prepared and cleaned for refugee camps. Water-supply has been to a large extent restored and 50 tube-wells which were intended for use in the town will now be utilised in the muffassal if no longer wanted. Similar arrangements have been made elsewhere by the District Magistrates. Without communications proper and prompt relief measures are impossible. To restore the most important district board roads the boards of Tirhut have been authorised to spend up to Rs. 6 lakhs on earthwork and a survey is being made with a view to restore the broken bridges on the main roads to a condition in which they can be used temporarily. From the Army Department one hundred large tents have reached Patna and 150 more are on their way and the Commissioners of Tirhut and Bhagalpur have been informed that they may indent direct for tents from the Eastern Command. Detachments of Sappers and Miners to deal with dangerous buildings in Muzaffarpur, Darbhanga and Monghyr have arrived and are already at work. They are also being used for temporary restoration of bridges and enquiries are now being made whether further detachments can be of use. The General Officer Commanding has also offered military transport which may be of use when communications are restored. We have asked for ten lorries to help in clearing the streets of debris of fallen houses to prevent the blocking which would inevitably follow on removal by bullockcarts. The Red Cross have received 5,200 blankets, five thousand more are on their way and the purchase of another ten thousand if they are required has been sanctioned.

Twenty-four thousand rupees has been sent to Collectors of districts for the purchase of medical comforts; five thousand rupees as reserve to the Commissioners, and five thousand rupees of the epidemic reserve for district boards. A reserve of fourteen thousand rupees is with the Medical Department in Patna for the purchase of what cannot be obtained by the Collectors locally, and the Organising Secretary of the Central Red Cross Association arrived in Patna yesterday and is here to assist us further. We have had many offers of help from outside. The Governments of the United Provinces and Bengal have offered any assistance in their power, and as communications are restored we expect to avail ourselves of their offers. In general response to offers from the public, we have asked for self-contained relief units for Monghyr immediately and for North Bihar when they can be despatched to the places where they are needed. The St. John's Ambulance Corps from Calcutta are sending to-day such a unit of medical relief to Monghyr. An extraordinary prompt and useful contribution has been made by Messrs. Tata Iron and Steel Company who sent a special train to Monghyr with iron sheets and uprights in six wagons, besides stores of food and officers with mechanics to erect shelters. A gift of two hundred blankets has been received from the British India Corporation, Cawnpore, and 500 more from Rai Bahadur Radha Krishna Jalan. The Bengal Chemical and Pharmaceutical Works, Calcutta, have put at our disposal one thousand rupees worth of drugs.

These are in the main the lines of relief already adopted. The period of reconstruction, except in the matter of roads and railways, has yet to come.

Two other matters are engaging the attention of Government, first, the prevention of profiteering. The local officers everywhere are alive to this danger. I may mention that here in Patna the iron foundry, Messrs. Bhanamal Gulzarimal, have undertaken to stock for house repairs iron material and cement for issue to the public at normal prices. The second matter concerns alarmist rumours, both of the past and the future. We have given the earliest and fullest information possible on all points as it has reached Government, and it is sheer cruelty to distress people with unverified reports and with prophecies of future disasters. I rely on you to exert all your influence to stop this.

I trust that I have shown to you the need of the widest and most generous response to the Viceroy's appeal, and I can do no better than conclude with his words: "It is no exaggeration to say that there has been appalling loss of life and countless homes have been destroyed and over a wide area property and possessions have been annihilated and have ceased to exist. At such a time I feel confident that the sympathy of all classes of people in this country goes out to those who have been involved in this great disaster and efforts to alleviate their sufferings will meet with a ready response".

APPENDIX V.

Sources of information available to public.

CHAPTER II.—EARTHQUAKE.

A Report on the Bihar Earthquake and on the measures taken in consequence thereof up to the 31st December 1934.

CHAPTER III.—FINANCE.

Financial statements for Bihar and Orissa, 1933-34, and Debates in the Legislative Council on the budgets for 1933-34 and 1934-35.

CHAPTER IV.—THE LEGISLATURE.

Proceedings of the Bihar and Orissa Legislative Council (Volumes XXVII, XXVIII, XXIX, XXX.)

CHAPTER V.—LOCAL SELF-GOVERNMENT.

Resolutions reviewing the reports on the working of the district boards and municipalities in Bihar and Orissa during 1933-34.

CHAPTER VI.—EDUCATION.

Report of the Committee on Primary Education.
Report on the Progress of Education in Bihar and Orissa for 1933-34.
Bihar and Orissa Council of Women—Report for the year 1934.

CHAPTER VII.—PUBLIC HEALTH AND MEDICAL RELIEF.

Annual Public Health Report for 1933 and the Annual Vaccination Report for 1933-34.

Annual Report of the Superintending Engineer, Public Health Circle (Engineering branch), for 1933-34.

Annual Report of the Prince of Wales Medical College for 1933-34.

Annual Report of the Medical Schools in the province for 1933-34.

Annual Report on the working of the Mental hospital, 1933.

Annual Report on the working of the Radium Institute for 1933.

Annual Report on the working of the Pasteur Institute for 1933.

Annual Report of the Itki Sanatorium for 1933.

Annual Returns of Hospitals and Dispensaries for 1933.

CHAPTER VIII.—MAINTENANCE OF THE PEACE, ADMINISTRATION OF JUSTICE AND JAILS.

Annual Report on the Administration of the Police Department for 1933.

Report on the Administration of Criminal Justice for 1933.

Report on the Administration of Civil Justice for 1933.

Administration Report on Jails in Bihar and Orissa for 1933.

CHAPTER IX.—EXCISE.

Report on the Administration of the Excise Department for 1933-34.

CHAPTER X.—THE LAND AND THE PEOPLE.

Report on Land Revenue Administration for 1933-34.

Report of Wards, Encumbered, Trust and Attached estates for 1933-34.

Annual Report on the working of the Department of Land Records and Surveys, Bihar and Orissa, for the year ending September 1934.

Annual Progress Report on the Forest Administration for 1933-34.

Annual Administration Report of the Irrigation Department for 1933-34.

Administration and Progress Report of the Public Works Department (Roads and Buildings) for 1933-34.

CHAPTER XI.—AGRICULTURE AND CO-OPERATION.

Annual Report of the Agricultural Department for 1933-34.

Annual Report of the Civil Veterinary Department for 1933-34.

Report on the working of the Co-operative Societies in Bihar and Orissa for 1933.

Season and Crop Report for 1933-34.

Report of the Committee on Co-operation, 1932-33.

CHAPTER XII.—COMMERCE AND INDUSTRY.

Report of the Chief Inspector of Mines in India for 1933.

Annual Report on the working of the Indian Factories Act in Bihar and Orissa in 1933.

Maritime Trade Report, Bihar and Orissa, for 1933.

Annual Report on the working of Joint Stock Companies in the Province of Bihar and Orissa for 1933-34.

Annual Report of the Director of Industries for 1933-34.

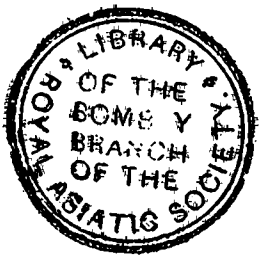
GLOSSARY.

VERNACULAR.		ENGLISH.
Abwab	...	Illegal taxation.
Atta	...	Flour.
Ayurvedic	...	Pertaining to oriental medical science.
Bakr-Id	...	A Muslim festival at which cows are sometimes sacrificed.
Bazar	...	Market place.
Bhadai	...	Autumn crop.
Bhang	...	An intoxicating drug made from leaves of the hemp plant.
Bundh	...	Embankment.
Chaukidar	...	Village watchman.
Dai	...	Maid-servant.
Ganja	...	The hemp plant, which is smoked for intoxication.
Gola	...	Granary or store-house.
Gur	...	Raw sugar.
Harijan	...	An untouchable.
Hartal	...	Suspension of business, used as a political demonstration.
Id-ul-Fitr	...	A Muslim religious festival.
Kamdar	...	Expert cultivator.
Khaddar	...	Cloth made from hand-spun yarn.
Madrasa	...	School for education in Urdu, Persian or Arabic.
Maktab	...	Elementary village school for education in Urdu.
Mela	...	Fair or religious gathering.
Muharram	...	A Muhammadan festival.
Panchayat	...	A committee, a body of arbitrators, originally five in number.
Pathshala	...	Elementary village school.
Purdah	...	(lit. a veil or curtain). A custom by which ladies of respectable class do not appear in public.
Rabi	...	The spring harvest.
Raiyat	...	A tenant cultivator.
Rakhat	...	Reserve.
Sahiwal	...	A Punjab breed of good milch cattle.
Sanatanist	...	A follower of Sanatan Dharma.
Swaraj	...	Self-Government.
Takavi ...	...	Agricultural.
Tari	...	Toddy, fermented juice of the palm tree.

MEASUREMENTS.

80 tolas = 16 chitaks = 1 seer (= about 2 lbs. avoirdupois).
40 seers = 1 maund.
1 lakh = 1,00,000.
1 crore = 100 lakhs.

BOGP (Rev.) 57—380—30-4-1935—JS & others.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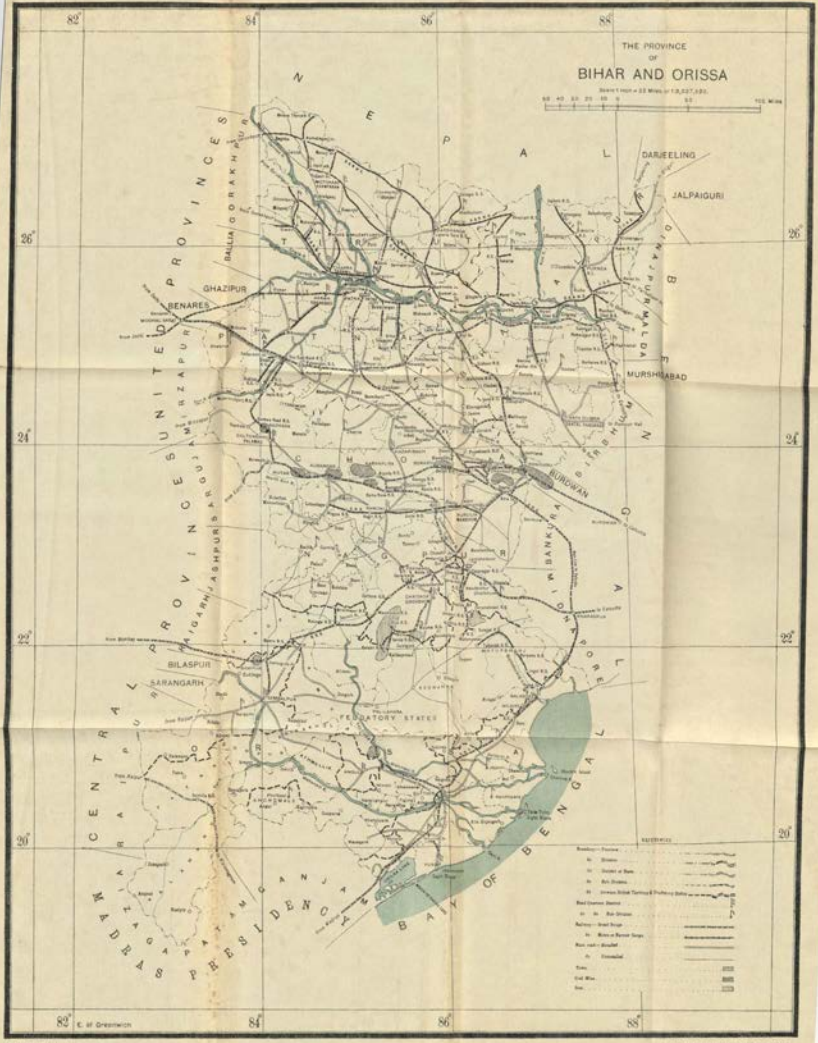

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